

## CHAPTER 1

### GENERAL INFORMATION

This chapter provides input to assist an Aviation Medical Examiner (AME), otherwise known as an Examiner, in performing his or her duties in an efficient and effective manner. It also describes Examiner responsibilities as the Federal Aviation Administration's (FAA) representative in medical certification matters and as the link between airmen and the FAA.

#### 1. Legal Responsibilities Of Designated Aviation Medical Examiners

Title 49, United States Code (U.S.C.) (Transportation), sections 109(9), 40113(a), 4701-44703, and 44709 (1994) formerly codified in the Federal Aviation Act of 1958, as amended, authorizes the FAA Administrator to delegate to qualified private persons; i.e. designated Examiners, matters related to the examination, testing, and inspection necessary to issue a certificate under the U.S.C. and to issue the certificate. Designated Examiners are delegated the Administrator's authority to examine applicants for airman medical certificates and to issue or deny issuance of certificates.

Approximately 450,000 applications for airman medical certification are received and processed each year. The vast majority of medical examinations conducted in connection with these applications are performed by physicians in private practice who have been designated to represent the FAA for this purpose. An Examiner is a designated representative of the FAA Administrator with important duties and responsibilities. It is essential that Examiners recognize the responsibility associated with their appointment.

The consequences of a negligent or wrongful certification, which would permit an unqualified person to take the controls of an aircraft, can be serious for the public, for the Government, and for the Examiner. If the examination is cursory and the Examiner fails to find a disqualifying defect that should have been discovered in the course of a thorough and careful examination, a safety hazard may be created and the Examiner may bear the responsibility for the results of such action.

Of equal concern is the situation in which an Examiner deliberately fails to report a disqualifying condition either observed in the course of the examination or otherwise known to exist. In this situation, both the applicant and the Examiner in completing the application and medical report form, may be found to have committed a violation of Federal criminal law which provides that:

"Whoever in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or device a material fact, or who makes any false, fictitious or fraudulent

statements or representations, or entry, may be fined up to \$250,000 or imprisoned not more than 5 years, or both" (Title 18 U.S. Code. Secs. 1001; 3571).

Cases of falsification may be subject to criminal prosecution by the Department of Justice. This is true whether the false statement is made by the applicant, the Examiner, or both. In view of the pressures sometimes placed on Examiners by their regular patients to ignore a disqualifying physical defect that the physician knows to exist, it is important that all Examiners be aware of possible consequences of such conduct.

In addition, when an airman has been issued a medical certificate that should not have been issued, it is frequently necessary for the FAA to begin a legal revocation or suspension action to recover the certificate. This procedure is time consuming and costly. Furthermore, until the legal process is completed, the airman may continue to exercise the privileges of the certificate, thereby compromising aviation safety.

## **2. Authority of Aviation Medical Examiners**

The Examiner is delegated authority to:

- Examine applicants for, and holders of, airman medical certificates to determine whether or not they meet the medical standards for the issuance of an airman medical certificate.
- Issue or deny airman medical certificates to applicants or holders of such certificates based upon whether or not they meet the applicable medical standards. The medical standards are found in Title 14 of the Code of Federal Regulations, part 67. (See Appendix A).

A medical certificate issued by an Examiner is considered to be affirmed as issued unless, within 60 days after date of issuance (date of examination), it is reversed by the Federal Air Surgeon, a RFS, or the Manager, AMCD. However, if the FAA requests additional information from the applicant within 60 days after the issuance, the above-named officials have 60 days after receipt of the additional information to reverse the issuance.

## **3. Equipment Requirements**

For the conduct of the medical examination, Examiner's shall have adequate facilities for performing the required examinations and possess or agree to obtain the following equipment prior to conducting any FAA examinations. History or current findings may indicate a need for special evaluations.

1. Standard Snellen Test. Types for visual acuity (both near and distant) and appropriate eye lane. FAA Form 8500-1, Near Vision Acuity Test Card may be used for near and intermediate vision testing. Metal, opaque plastic or cardboard occluder.

2. Eye Muscle Test-Light. May be a spot of light 0.5cm in diameter, a regular muscle-test light, or an ophthalmoscope.
3. Maddox Rod. May be hand type.
4. Horizontal Prism Bar. Risley, Hughes, or hand prism are acceptable alternatives.
5. Color Vision Test Apparatus. Pseudoisochromatic plates, (American Optical Company (AOC), 1965 edition; AOC-HRR, 2nd edition); Dvorine, 2nd edition; Ishihara, Concise 14 -, 24 -; or 38-plate editions; or Richmond (1983 edition, 15-plates). Acceptable substitutes are: Farnsworth Lantern; Keystone Orthoscope; Keystone Telebinocular; LKC Technologies, Inc., Apt-5 Color Vision Tester; OPTEC 2000 Vision Tester (Models 2000PAME, and 2000OPI); Titmus Vision Tester; Titmus II Vision Tester (Model Nos. TII and TIIS); and Titmus 2 Vision Tester (Models T2A and T2S).
6. A Wall Target consisting of a 50-inch square surface with a matte finish (may be black felt or dull finish paper) and a 2-mm white test object (may be a pin) in a suitable handle of the same color as the background.
7. Other vision test equipment that is acceptable as a replacement for 1 through 4 above includes the American Optical Company Site-Screener, Bausch and Lomb Orthorator, Keystone Orthoscope or Telebinocular, Titmus Vision Tester, or Stereo Optical Co. OPTEC 2000 VISION TESTER.
8. Standard physician diagnostic instruments and aids including those necessary to perform urinalysis.
9. Electrocardiographic equipment. Senior Examiners must have access to digital electrocardiographic equipment with electronic transmission capability.
10. Audiometric equipment. All Examiners must have access to audiometric equipment or a capability of referring applicants to other medical facilities for audiometric testing.

#### 4. Medical Certification Decision Making and AME Assisted Special Issuance (AASI)

A. After reviewing the medical history and completing the examination, Examiners must:

- Issue a medical certificate,
- Deny the application, or
- Defer the action to the Manager, AMCD, AAM-300, or the appropriate RFS

Examiners **may issue** a medical certificate *only* if the applicant meets all medical standards, including those pertaining to medical history unless otherwise authorized by the FAA.

Examiners **may not issue** a medical certificate if the applicant fails to meet specified minimum standards or demonstrates any of the findings or diagnoses described in this Guide as "disqualifying" unless the condition is unchanged or improved and the applicant presents written documentation that the FAA has evaluated the condition, found the applicant eligible for certification, and authorized Examiners to issue certificates.

The Examiner must be aware that an established medical history or clinical diagnosis of any of the following is disqualifying:

- Angina pectoris;
- Bipolar disorder;
- Cardiac valve replacement;
- Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant;
- Diabetes mellitus requiring insulin or other hypoglycemic medication;
- Disturbance of consciousness without satisfactory medical explanation of the cause;
- Epilepsy;
- Heart replacement;
- Myocardial infarction;

- Permanent cardiac pacemaker;
- Personality disorder that is severe enough to have repeatedly manifested itself by overt acts;
- Psychosis;
- Substance abuse;
- Substance dependence;
- Transient loss of control of nervous system function(s) without satisfactory medical explanation of cause.

An airman who is medically disqualified for any reason may be considered by the FAA for an Authorization for Special Issuance of a Medical Certificate (Authorization). For medical defects, which are static or nonprogressive in nature, a Statement of Demonstrated Ability (SODA), may be granted in lieu of an Authorization.

The Examiner **always may defer** the application to the FAA for action. In the interests of the applicant and of a responsive certification system, however, deferral is appropriate only if the standards are not met; if there is an unresolved question about the history, the findings, the standards, or agency policy; if the examination is incomplete; if further evaluation is necessary; or if directed by the FAA.

The Examiner **may deny** certification *only* when the applicant clearly does not meet the standards.

#### B. AME Assisted Special Issuance (AASI) for Airman Medical Certification

The format of the Guide establishes tables in Chapter 3 for Items 25 - 48 (FAA Form 8500-8). The PROTOCOL section of the aeromedical decisions tables identifies the information required by the Agency to determine the eligibility of the applicant to be medically certificated. References to specific medical tests or procedures should be coordinated through the airman's treating physician(s). At times, an airman may not have an established treating physician and the Examiner may elect to fulfill this role. You must consider your responsibilities in your capacity as an Examiner as well as the potential conflicts that may arise when performing in this dual capacity.

If this is a first-time issuance for a disqualifying disease/condition and the airman has all of the requisite medical information necessary for a determination, the Examiner must defer and submit all of the documentation to the AMCD or contact the RFS.

The Guide refers to a number of selected medical conditions that are initially disqualifying and must be deferred to the AMCD or RFS. Following the granting of an Authorization for Special Issuance of a Medical Certificate (Authorization) by the AMCD or RFS's office, the AASI process allows the Examiner to reissue airman medical certificates to **ALL CLASSES** provided the airman meets disease/condition certification criteria.

## 5. Privacy of Medical Information

A. Within the FAA, access to an individual's medical information is strictly on a "need-to-know" basis. The safeguards of the Privacy Act apply to the application for airman medical certification and to other medical files in the FAA's possession. The FAA does not release medical information without an order from a court of competent jurisdiction, written permission from the individual to whom it applies, or, with the individual's knowledge, during litigation of matters related to certification. The FAA does, however, on request, disclose the fact that an individual holds an airman medical certificate and its class, and it may provide medical information regarding a pilot involved in an accident to the National Transportation Safety Board (NTSB) (or to a physician of the appropriate medical discipline who is retained by the NTSB for use in aircraft accident investigation.)

The Examiner, as a representative of the FAA, should treat the applicant's medical certification information in accordance with the requirements of the Privacy Act. Therefore, information should not be released without the written consent of the applicant or an order from a court of competent jurisdiction. In order to ensure that release of information is proper, whenever a court order or subpoena is received by the Examiner, the appropriate RFS (see Appendix C), or the AMCD, AAM-300 (see address below), should be contacted. Similarly, unless the applicant's written consent for release is of a routine nature; e.g., accompanying a standard insurance company request, advice should be sought from the FAA before releasing any information. In all cases, copies of all released information should be retained.

B. Health Insurance Portability and Accountability Act of 1996 (HIPAA) and Examiner's activities for the FAA. This Act provides specific patient protections and depending upon an Examiner's activation and practice patterns, you may have to comply with additional requirements.

Please see the *Federal Air Surgeon's Medical Bulletin • Spring 2003* for information regarding the Act. You may access this Bulletin using the following URL:

<http://www.cami.jccbi.gov/AAM-400a/FASMB/FAS200301/hipaa.htm>

## **6. Release of Information**

Except in compliance with an order of a court of competent jurisdiction, or upon an applicant's written request, Examiners will not divulge or release copies of any reports prepared in connection with the examination to anyone other than the applicant or the FAA. A copy of the examination may be released to the applicant upon request. Upon receipt of a court subpoena or order, the Examiner shall notify the appropriate RFS. Other requests for information will be referred to:

MANAGER  
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-331  
CIVIL AEROMEDICAL INSTITUTE  
FEDERAL AVIATION ADMINISTRATION  
POST OFFICE BOX 26200  
OKLAHOMA CITY, OK 73125-0080

## **7. No "Alternate" Examiners Designated**

The Examiner is to conduct all medical examinations at their designated address only. An Examiner *is not permitted* to conduct examinations at a temporary address and is not permitted to name an alternate Examiner. During an Examiner's absence from the permanent office, applicants for airman medical certification shall be referred to another Examiner in the area.

## **8. Who May Be Certified**

### ***a. Age Requirements***

There is no age restriction or aviation experience requirements for medical certification. Any applicant who qualifies medically may be issued a Medical Certificate, FAA Form 8500-9 (white), regardless of age. Examiners also have been delegated authority to issue the combined Medical Certificate and Student Pilot Certificate, FAA Form 8420-2 (yellow), which is age restricted because it is an airman medical and student pilot certificate (student license and medical certificate). For issuance of the combined certificate, the applicant must have reached his or her 16th birthday.

Minimum age requirements for the various airman certificates (i.e., pilot license certificates) are defined in 14 CFR part 61, Certification: Pilots and Flight Instructors, and Ground Inspectors as follows:

- (1) *Airline transport pilot (ATP) certificate*: 23 years
- (2) *Commercial pilot certificate*: 18 years
- (3) *Private pilot certificate*: powered aircraft - 17 years; gliders and balloons - 16 years
- (4) *Student pilot certificate*: powered aircraft - 16 years; gliders and balloons - 14 years

### ***b. Language Requirements***

An applicant for an Airman Medical and Student Pilot Certificate must be able to read, speak, write, and understand the English language.

If the Examiner believes that an applicant applying for a Medical Certificate and Student Pilot Certificate, FAA Form 8420-2 (yellow), cannot read, speak, write, and understand the English language, the applicant shall be referred to the nearest Flight Standards District Office (FSDO) for a determination of eligibility for the Student Pilot Certificate. (See Appendix E for FSDO addresses).

Under these circumstances, the Examiner may issue only a Medical Certificate, FAA Form 8500-9 (white), and the applicant must present that certificate to the FSDO when applying for a Student Pilot Certificate.

## **9. Classes of Medical Certificates**

An applicant may apply and be granted any class of airman medical certificate as long as the applicant meets the required medical standards for that class of medical certificate. However, an applicant must have the appropriate class of medical certificate for the flying duties the airman intends to exercise. For example, an applicant who exercises the privileges of an airline transport pilot (ATP) certificate must hold a first-class medical certificate. That same pilot when holding only a third-class medical certificate may only exercise flying activities of a private pilot certificate. Finally, an applicant need not hold an ATP airman certificate to be eligible for a first-class medical certificate.

Listed below are the three classes of airman medical certificates, identifying the categories of airmen (i.e., pilot) certificates applicable to each class.

**First-Class** - Airline Transport Pilot.

**Second-Class** - Commercial Pilot; Flight Engineer; Flight Navigator; or Air Traffic Control Tower Operator. (Note: This category of air traffic controller does not include FAA employee air traffic control specialists).

**Third-Class** - Private Pilot, Recreational Pilot, or Student Pilot.



## **10. Operations Not Requiring a Medical Certificate**

Glider and Free Balloon Pilots are not required to hold a medical certificate of any class. To be issued Glider or Free Balloon Airman Certificates, applicants must certify that they do not know, or have reason to know, of any medical condition that would make them unable to operate a glider or free balloon in a safe manner. This certification is made at the local FAA Flight Standards District Office.

“Sport” pilots are required to hold either a valid airman medical certificate or a current and valid U.S. driver’s license. When using a current and valid U.S. driver’s license to qualify, sport pilots must comply with each restriction and limitation on their U.S. driver’s license and any judicial or administrative order applying to the operation of a motor vehicle.

To exercise sport pilot privileges using a current and valid U.S. driver’s license as evidence of qualification sport pilots must:

- not have been denied the issuance of at least a third-class airman medical certificate (if they have applied for an airman medical certificate)
- not have had their most recent airman medical certificate revoked or suspended (if they have held an airman medical certificate); and
- not have had an Authorization withdrawn (if they have ever been granted an Authorization)

Sport pilots may not use a current and valid U.S. driver’s license in lieu of a valid airman medical certificate if they know or have reason to know of any medical condition that would make them unable to operate a light-sport aircraft in a safe manner.

Sport pilot medical provisions are found under 14 CFR §§ 61.3, 61.23, 61.53, and 61.303).

For more information about the sport pilot final rule, see:

[http://dmses.dot.gov/docimages/pdf89/289219\\_web.pdf](http://dmses.dot.gov/docimages/pdf89/289219_web.pdf)

<http://www.faa.gov/avr/afs/sportpilot/faq.doc>

## 11. Validity of Medical Certificates

A. First-Class Medical Certificate: A first-class medical certificate is valid for the remainder of the month of issue; plus

6-calendar months for activities requiring a first-class medical certificate, or plus

12-calendar months for activities requiring a second-class medical certificate, or plus

24-calendar months for activities requiring a third-class medical certificate, or plus

36-calendar months for activities requiring a third-class medical certificate if the airman has not reached his or her 40th birthday on or before the date of examination.\*

B. Second-Class Medical Certificate: A second-class medical certificate is valid for the remainder of the month of issue; plus

12-calendar months for activities requiring a second-class medical certificate, or plus

24-calendar months for activities requiring a third-class medical certificate, or plus

36-calendar months for activities requiring a third-class medical certificate if the airman has not reached his or her 40th birthday on or before the date of examination.\*

C. Third-Class Medical Certificate: A third-class medical certificate is valid for the remainder of the month of issue; plus

24-calendar months for activities requiring a third-class medical certificate, or plus

36-calendar months for activities requiring a third-class medical certificate if the airman has not reached his or her 40th birthday on or before the date of examination.\*

Each medical certificate must bear the same date as the date of medical examination regardless of the date the certificate is actually issued.

**\*NOTE: Flight Outside the Airspace of the United States of America (U.S.A.)--a pilot who is issued a medical certificate under the age of 40 may not exercise the privileges of a private pilot certificate outside the U.S.A. after the 24 months of validity of that medical certificate except as permitted by a foreign country(s) where the flight occurs. The maximum validity of a private pilot medical certificate is 24 months under the standards of the International Civil Aviation Organization.**

## **12. Title 14 CFR § 61.53, Prohibition on Operations During Medical Deficiency**

**NOTE:** 14 CFR § 61.53 was revised on July 27, 2004 by adding subparagraph (c)

(a) Operations that require a medical certificate. Except as provided in paragraph (b) of this section, a person who holds a current medical certificate issued under part 67 of this chapter shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person:

(1) Knows or has reason to know of any medical condition that would make the person unable to meet the requirements for the medical certificate necessary for the pilot operation; or

(2) Is taking medication or receiving other treatment for a medical condition that results in the person being unable to meet the requirements for the medical certificate necessary for the pilot operation

(b) Operations that do not require a medical certificate. For operations provided for in § 61.23(b) of this part, a person shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person knows or has reason to know of any medical condition that would make the person unable to operate the aircraft in a safe manner.

(c) Operations requiring a medical certificate or a U.S. driver's license. For operations provided for in Sec. 61.23(c), a person must meet the provisions of--

(1) Paragraph (a) of this section if that person holds a valid medical certificate issued under part 67 of this chapter and does not hold a current and valid U.S. driver's license

(2) Paragraph (b) of this section if that person holds a current and valid U.S. driver's license

## **13. Reexamination of an Airman**

A medical certificate holder may be required to undergo a reexamination at any time if, in the opinion of the Federal Air Surgeon or authorized representative within the FAA, there is a reasonable basis to question the airman's ability to meet the medical standards. An Examiner may **NOT** order such reexamination.

## **14. Examination Fees**

The FAA does not establish fees to be charged by Examiners for the medical examination of persons applying for airman medical certification. It is recommended that the fee be the usual and customary fee established by other physicians in the same general locality for similar services.

## 15. Replacement of Medical Certificates

Medical certificates that are lost or accidentally destroyed may be replaced upon proper application provided such certificates have not expired. The request should be sent to:

FOIA DESK  
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-331  
FEDERAL AVIATION ADMINISTRATION  
CIVIL AEROSPACE MEDICAL INSTITUTE  
POST OFFICE BOX 26200  
OKLAHOMA CITY, OK 73125-0080

The airman's request for replacement must be accompanied by a remittance of two dollars (\$2) (check or money order) made payable to the FAA. This request must include:

- The airman's full name and date of birth;
- The class of certificate;
- The place and date of examination;
- The name of the Examiner; and
- The circumstances of the loss or destruction of the original certificate.

The replacement certificate will be prepared in the same manner as the missing certificate and will bear the same date of examination regardless of when it is issued.

***In an emergency, contact your RFS or the Manager, AMCD, AAM-300, at above address or by facsimile at 405-954-4300 for certification verification **only**.***

## 16. Disposition of Applications and Medical Examinations

All **completed** applications and medical examinations, unless otherwise directed by the FAA, **must** be transmitted electronically within 14 days after completion to the AMCD.

In addition, the FAA/Original Copy **must** be mailed to:

MANAGER  
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-300  
CIVIL AEROSPACE MEDICAL INSTITUTE  
FEDERAL AVIATION ADMINISTRATION  
POST OFFICE BOX 26080  
OKLAHOMA CITY, OK 73125-0080

These may be batch mailed at monthly intervals. All **incomplete** applications and medical examinations **must** be mailed immediately to the above address.

The AME Work Copy **must** be retained by the AME as their file copy for at least 3 years unless exceeded by state law requirements where the AME is licensed and performed the examination.

The Applicant's Copy of the FAA Form 8500-8 (last page) must be given to the applicant along with the information for Applicant and the instruction sheet.

Examiners not required to use the AMCS; e.g., International AME's, **must** forward the typed, completed FAA/Original Copy to the above address.

## **17. Protection and Destruction of Forms**

Examiners are cautioned to provide adequate security for blank medical application and certificate forms to ensure that they do not become available for illegal use. When the FAA issues new or revised medical forms and certificates, the FAA will advise Examiners of the disposition of the old forms and certificates. The serial numbers of FAA Form 8500-8 assigned to each Examiner are recorded at the Civil Aerospace Medical Institute in Oklahoma City. If asked, the Examiner should be prepared to account for the forms. The Examiners are responsible making provisions to return of all unused FAA forms at such time they leave (resign, retire, terminated, or death) the AME Program. **Forms should not be shared with other Examiners.**

## **18. Questions or Requests for Assistance**

When an Examiner has a question or needs assistance in carrying out responsibilities, the Examiner should contact one of the following individuals:

***a. Regional Flight Surgeon (RFS) (Names, addresses, and telephone numbers of RFS's are provided in Appendix C).***

- Questions pertaining to problem medical certification cases in which the RFS has initiated action.

- Telephone interpretation of medical standards or policies involving an individual airman whom the Examiner is examining.
- Matters regarding designation and redesignation of Examiners and the Aviation Medical Examiner Program.
- Attendance at Aviation Medical Examiner Seminars.

***b. Manager, AMCD, AAM-300***

- Inquiries concerning guidance on problem medical certification cases.
- Information concerning the overall airman medical certification program.
- Matters involving FAA medical certification of military personnel.
- Information concerning medical certification of applicants in foreign countries.

These inquiries should be made to:

MANAGER  
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-300  
CIVIL AEROSPACE MEDICAL INSTITUTE  
FEDERAL AVIATION ADMINISTRATION  
POST OFFICE BOX 26080  
OKLAHOMA CITY, OK 73125

***c. Manager, Aeromedical Education Division, AAM-400***

- Matters regarding designation and redesignation of International Examiners, military facilities, and military Examiners.
- Requests for medical forms and stationery.
- Requests for airman medical educational material.

These inquiries should be made to:

MANAGER  
*Ankylosis*, AAM-400  
CIVIL AEROSPACE MEDICAL INSTITUTE  
FEDERAL AVIATION ADMINISTRATION  
POST OFFICE BOX 25082  
OKLAHOMA CITY, OK 73125-0082

## **19. Airman Appeals**

### ***a. Request for Reconsideration***

An Examiner's denial of a medical certificate is not a final FAA denial. An applicant may ask for reconsideration of an Examiner's denial by submitting a request in writing to:

FEDERAL AIR SURGEON  
ATTN: MANAGER,  
AEROSPACE MEDICAL CERTIFICATION DIVISION, AAM-331  
CIVIL AEROSPACE MEDICAL INSTITUTE  
FEDERAL AVIATION ADMINISTRATION  
POST OFFICE BOX 26200  
OKLAHOMA CITY, OK 73125-0080

The AMCD will provide initial reconsideration. Some cases may be referred to the appropriate RFS for action. If the AMCD, or a RFS finds that the applicant is not qualified, the applicant is denied and advised of further reconsideration and appeal procedures. These may include reconsideration by the Federal Air Surgeon and/or petition for NTSB review.

### ***b. Authorization for Special Issuance of a Medical Certificate (Authorization)***

At the discretion of the Federal Air Surgeon, an Authorization for Special Issuance of a Medical Certificate (Authorization), valid for a specified period, may be granted to a person who does not meet the established medical standards if the person shows to the satisfaction of the Federal Air Surgeon that the duties authorized by the class of medical certificate applied for can be performed without endangering public safety during the period in which the Authorization would be in force. The Federal Air Surgeon may authorize a special medical flight test, practical test, or medical evaluation for this purpose. A medical certificate of the appropriate class may be issued to a person who fails to meet one or more of the established medical standards if that person possesses a valid agency issued Authorization and is otherwise eligible. An airman medical certificate issued in accordance with the special issuance section of part 67 (14 CFR § 67.401), shall expire no later than the end of the validity period or upon the withdrawal of the Authorization upon which it is based. An airman must again show to the satisfaction of the Federal Air Surgeon that the duties authorized by the class of medical certificate applied for can be performed without endangering public safety in order to obtain a new medical certificate and/or a Re-Authorization.

In granting an Authorization, the Federal Air Surgeon may consider the person's operational experience and any medical facts that may affect the ability of the person to perform airman duties including:

- The factors leading to and surrounding the episode
- The combined effect on the person of failing to meet one or more than one requirement of part 67; and
- The prognosis derived from professional consideration of all available information regarding the person.

In granting an Authorization, the Federal Air Surgeon specifies the class of medical certificate authorized to be issued and may do any or all of the following:

- Limit the duration of an Authorization;
- Condition the granting of a new Authorization on the results of subsequent medical tests, examinations, or evaluations;
- State on the Authorization, and any medical certificate based upon it, any operational limitation needed for safety; or
- Condition the continued effect of an Authorization, and any second- or third-class medical certificate based upon it, on compliance with a statement of functional limitations issued to the person in coordination with the Director of Flight Standards or the Director's designee.
- In determining whether an Authorization should be granted to an applicant for a third-class medical certificate, the Federal Air Surgeon considers the freedom of an airman, exercising the privileges of a private pilot certificate, to accept reasonable risks to his or her person and property that are not acceptable in the exercise of commercial or airline transport pilot privileges, and, at the same time, considers the need to protect the safety of persons and property in other aircraft and on the ground.

An Authorization granted to a person who does not meet the applicable medical standards of part 67 may be withdrawn, at the discretion of the Federal Air Surgeon, at any time if:

- There is adverse change in the holder's medical condition;



- The holder fails to comply with a statement of functional limitations or operational limitations issued as a condition of certification under the special issuance section of part 67 (14 CFR 67.401);
- Public safety would be endangered by the holder's exercise of airman privileges;
- The holder fails to provide medical information reasonably needed by the Federal Air Surgeon for certification under the special issuance section of part 67 (14 CFR 67.401); or
- The holder makes or causes to be made a statement or entry that is the basis for withdrawal of an Authorization under the falsification section of part 67 (14 CFR 67.403).

A person who has been granted an Authorization under the special issuance section of part 67 (14 CFR 67.401), based on a special medical flight or practical test, need not take the test again during later medical examinations unless the Federal Air Surgeon determines or has reason to believe that the physical deficiency has or may have degraded to a degree to require another special medical flight test or practical test.

The authority of the Federal Air Surgeon under the special issuance section of part 67 (14 CFR 67.401) is also exercised by the Manager, AMCD, and each RFS.

If an Authorization is withdrawn at any time, the following procedures apply:

- The holder of the Authorization will be served a letter of withdrawal, stating the reason for the action;
- By not later than 60 days after the service of the letter of withdrawal, the holder of the Authorization may request, in writing, that the Federal Air Surgeon provide for review of the decision to withdraw. The request for review may be accompanied by supporting medical evidence;
- Within 60 days of receipt of a request for review, a written final decision either affirming or reversing the decision to withdraw will be issued; and
- A medical certificate rendered invalid pursuant to a withdrawal, in accordance with the special issuance section of part 67 (14 CFR 67.401) shall be surrendered to the Administrator upon request.

***c. Statement of Demonstrated Ability (SODA)***

At the discretion of the Federal Air Surgeon, a Statement of Demonstrated Ability (SODA) may be granted, instead of an Authorization, to a person whose disqualifying condition is static or nonprogressive and who has been found capable of performing airman duties without endangering public safety. A SODA does not expire and

authorizes a designated Examiner to issue a medical certificate of a specified class if the Examiner finds that the condition described on the SODA has not adversely changed.

In granting a SODA, the Federal Air Surgeon may consider the person's operational experience and any medical facts that may affect the ability of the person to perform airman duties including:

- The combined effect on the person of failure to meet more than one requirement of part 67; and
- The prognosis derived from professional consideration of all available information regarding the person.

In granting a SODA under the special issuance section of part 67 (14 CFR 67.401), the Federal Air Surgeon specifies the class of medical certificate authorized to be issued and may do any of the following:

- State on the SODA, and on any medical certificate based upon it, any operational limitation needed for safety; or
- Condition the continued effect of a SODA, and any second- or third-class medical certificate based upon it, on compliance with a statement of functional limitations issued to the person in coordination with the Director of Flight Standards or the Director's designee.
- In determining whether a SODA should be granted to an applicant for a third-class medical certificate, the Federal Air Surgeon considers the freedom of an airman, exercising the privileges of a private pilot certificate, to accept reasonable risks to his or her person and property that are not acceptable in the exercise of commercial or airline transport pilot privileges, and, at the same time, considers the need to protect the safety of persons and property in other aircraft and on the ground.

A SODA granted to a person who does not meet the applicable standards of part 67 may be withdrawn, at the discretion of the Federal Air Surgeon, at any time if:

- There is adverse change in the holder's medical condition;
- The holder fails to comply with a statement of functional limitations or operational limitations issued under the special issuance section of part 67 (14 CFR 67.401).
- Public safety would be endangered by the holder's exercise of airman privileges;
- The holder fails to provide medical information reasonably needed by the Federal Air Surgeon for certification under the special issuance section of part 67 (14 CFR 67.401).

- The holder makes or causes to be made a statement or entry that is the basis for withdrawal of a SODA under the falsification section of part 67 (14 CFR 67.403); or
- A person who has been granted a SODA under the special issuance section of part 67 (14 CFR 67.401), based on a special medical flight or practical test need not take the test again during later medical examinations unless the Federal Air Surgeon determines or has reason to believe that the physical deficiency has or may have degraded to a degree to require another special medical flight test or practical test.

The authority of the Federal Air Surgeon under the special issuance section of part 67 (14 CFR 67.401) is also exercised by the Manager, AMCD, and each RFS.

If a SODA is withdrawn at any time, the following procedures apply:

- The holder of the SODA will be served a letter of withdrawal stating the reason for the action;
- By not later than 60 days after the service of the letter of withdrawal, the holder of the SODA may request, in writing, that the Federal Air Surgeon provide for review of the decision to withdraw. The request for review may be accompanied by supporting medical evidence;
- Within 60 days of receipt of a request for review, a written final decision either affirming or reversing the decision to withdraw will be issued; and
- A medical certificate rendered invalid pursuant to a withdrawal, in accordance with the special issuance section of part 67 (14 CFR 67.401(a)) shall be surrendered to the Administrator upon request.

***d. National Transportation Safety Board (NTSB)***

Within 60 days after a final FAA denial of an unrestricted airman medical certificate, an airman may petition the NTSB for a review of that denial. The NTSB does not have jurisdiction to review the denial of a SODA or special issuance airman medical certificate. A petition for NTSB review must be submitted in writing to:

NATIONAL TRANSPORTATION SAFETY BOARD  
490 L'ENFANT PLAZA, EAST SW  
WASHINGTON, DC 20594-0001

The NTSB is an independent agency of the Federal Government that has the authority to review on appeal the suspension, amendment, modification, revocation, or denial of any certificate or license issued by the FAA Administrator.

An Administrative Law Judge for the NTSB may hold a formal hearing at which the FAA will present documentary evidence and testimony by medical specialists supporting the denial decision. The petitioner will also be given an opportunity to present evidence and testimony at the hearing. The Administrative Law Judge's decision is subject to review by the full NTSB.

## CHAPTER 2

### APPLICATION FOR MEDICAL CERTIFICATION

#### General Information

This section contains guidance for items on the Medical History and General Information page of FAA Form 8500-8, Application for Airman Medical Certificate or Airman Medical and Student Pilot Certificate.

#### AME Guidance for Positive Identification of Airmen and Application Distribution Procedures

***All applicants must be asked to show proof of age and identity. On occasion, individuals have attempted to be examined under a false name. If the applicant is unknown to the Examiner, the Examiner should request evidence of positive identification. A Government issued photo identification (e.g., driver's license, identification card issued by a driver's license authority, military identification, or passport) provides age and identity and is preferred. Applicants may use other government-issued identification for age (e.g., certified copy of a birth certificate); however, the Examiner must request separate photo identification for identity (such as a work badge). Verify that the address provided is the same as that given under Item 5. Record the type of identification(s) provided and identifying number(s) under Item 61. Make a copy of the identification and keep it on file for 3 years with the AME work copy.***

An applicant who does not have government-issued photo identification may use non-photo government-issued identification (e.g. pilot certificate, birth certificate, voter registration card) in conjunction with a photo identification (e.g. work identification card, student identification card).

If an airman fails to provide identification, the Examiner must report this immediately to the AMCD, or the appropriate RFS for guidance.

#### II. Distribution of the FAA Form 8500-8 to the Applicant.

Both the yellow and white certificates and their instructions **must** be removed before the application is given to the applicant. The Information for Applicant and Instructions for Completion of the Application pages **must** also be given to the applicant.

On the general information and medical history page of the application, the applicant is to fill in Items 1-20 in his or her handwriting using a ballpoint pen, exerting sufficient pressure for all copies, to make legible imprints upon the Examiner's and airman's copies of the form.

### III. After the Applicant Completes the Medical History Page of the FAA Form 8500-8:

The Examiner must ensure completeness and review all items 1 through 20. A medical certificate must never be issued to an applicant who refuses to answer Item 13, page 26; Items 16 and 17, page 27; Item 18, page 29; or Item 19, page 34; or to an applicant who refuses to sign the form (Item 20, front side of the examination form). The date for Item 16 may be estimated if the applicant does not recall the actual date of the last examination. However, for the sake of electronic transmission, it must be placed in the mm/dd/yyyy format. (See Item 16, page 27).

Verify that the name on the applicant's identification media matches the name on the 8500-8. If it does not, question the applicant for an explanation. If the explanation is not reasonable (legal name change, subsequent marriage, etc.), do not continue the medical examination or issue a medical certificate. Contact your RFS for guidance.

The applicant's Social Security Number (SSN) is not mandatory. Failure to provide is not grounds for refusal to issue a medical certificate. (See Item 4, page 4). All other items on the form must be completed.

Applicants must provide their home address on the 8500-8. Applicants may use a private mailing address (e.g., a P.O. Box number or a mail drop) if that is their preferred mailing address; however, under Item 18 (in the "Explanations" box) of the 8500-8, they must provide their home address.

The applicant must personally enter all data and make all corrections on the application form. The applicant should initial all corrections. The application constitutes a legal document and *must be completed in the applicant's handwriting*. If for any reason someone other than the applicant enters information in Items 1-20, the person should initial beside that item (including any check marks), and the Examiner should add a note explaining in Item 60 (see, page 151), the person's inability to enter the data.

Strict compliance with this procedure is essential in case it becomes necessary for the FAA to take legal action for falsification of the application.

#### ITEMS 1-2. APPLICATION FOR; CLASS OF MEDICAL CERTIFICATE APPLIED FOR

|   |   |  |                              |                              |
|---|---|--|------------------------------|------------------------------|
| 1. Application For:                                 |   | 2. Class of Medical Certificate Applied For: |                              |                              |
| <input type="checkbox"/> Airman Medical Certificate | <input type="checkbox"/> Airman Medical and Student Pilot Certificate | <input type="checkbox"/> 1 <sup>ST</sup>     | <input type="checkbox"/> 2nd | <input type="checkbox"/> 3rd |

The applicant indicates whether the application is for an Airman Medical Certificate (white) or an Airman Medical and Student Pilot Certificate (yellow), and the class of medical certificate desired.

The class of medical certificate sought by the applicant is needed so that the appropriate medical standards may be applied. The class of certificate issued must correspond with that for which the applicant has applied.

The applicant may ask for a medical certificate of a higher class than needed for the type of flying or duties currently performed. For example, a student pilot may ask for a first-class medical certificate to see if he or she qualifies medically before entry into an aviation career.

The Examiner applies the standards appropriate to the class sought, not to the airman's duties - either performed or anticipated. The Examiner should never issue more than one certificate based on the same examination.

### ITEMS 3-10. IDENTIFICATION

|  |  |  |                                       |             |
|--|--|--|---------------------------------------|-------------|
| 3. Last Name                               |  | First Name                                 |                                       | Middle Name |
| 4. Social Security Number                  |  |  |                                       |             |
| 5. Address                                 |  | Telephone Number ( )                       |                                       |             |
| Number/Street                              |  |  |                                       |             |
| City                                       |  | State/Country                              |                                       | Zip Code    |
| 6. Date of Birth                           | 7. Color of Hair                         | 8. Color of Eyes                           | 9. Sex                                |             |
| MM / DD / YYYY                             |  |  |                                       |             |
| Citizenship                                |  |  |                                       |             |
| 10. Type of Airman Certificate(s) you hold |  |  |                                       |             |
| <input type="checkbox"/> None              | <input type="checkbox"/> ATC Specialist  | <input type="checkbox"/> Flight Instructor | <input type="checkbox"/> Recreational |             |
| <input type="checkbox"/> Airline Transport | <input type="checkbox"/> Flight Engineer | <input type="checkbox"/> Private           | <input type="checkbox"/> Other        |             |
| <input type="checkbox"/> Commercial        | <input type="checkbox"/> Fight Navigator | <input type="checkbox"/> Student           |                                       |             |

The following information is required for identification of the individual who is applying for medical certification:

#### 3. Last Name; First Name; Middle Name

The applicant's last, first, and middle name (or initial if appropriate) **must** be printed. All applicants without a middle name should enter "NMN" or "NONE". Nicknames and abbreviated names **must** not be used. **NOTE:** If the applicant's name changed for any reason, the current name is listed on the application and any former name(s) in the EXPLANATIONS box of Item 18 on the application.

#### 4. Social Security Number (SSN)

Although applicants are asked to complete all questions on the application, FAA Form 8500-8, they are not legally required to complete Item 4. The FAA requests the SSN for identification purposes and record control. Its use as a unique identifier may eliminate a mistake in identification.

## 5. Address and Telephone Number

The applicant must print a permanent mailing address, including country, and the zip code (full nine digits if known). The person must also provide a current daytime area code and telephone number.

## 6. Date of Birth

The applicant **must** enter the numbers for the month, day, and year of birth in order (e.g., 04/29/2000 for April 29, 2000). Name, date of birth, and SSN are the basic identifiers of airmen. When an Examiner wishes to communicate with the FAA concerning an applicant, the Examiner **must** give the applicant's full name, date of birth, and SSN if at all possible. The applicant should indicate citizenship; e.g., U.S.A.

If the applicant wishes to be issued an Airman Medical and Student Pilot Certificate (FAA Form 8420-2), the Examiner should check the date of birth to ensure that the applicant is at least 16 years old. Unless the applicant is at least 16 years old, a combined Airman Medical and Student Pilot Certificate *may not be issued*, even if the applicant will become 16 before the certificate expires (except as noted below).

The FAA will **not confirm** a certificate issued by an Examiner to a person who is less than 16 years old. The applicant must be at least 16 **at the time of application** to be eligible for a student pilot certificate for flight of powered aircraft. This minimum age requirement applies only to the issuance of the yellow FAA Form 8420-2, and never to the issuance of the white medical certificate (FAA Form 8500-9).

If the applicant is not yet 16 and wishes to solo on or after his or her 16th birthday, the Examiner should issue a white FAA Form 8500-9 (if the applicant is fully qualified medically). On or after his or her 16th birthday, the applicant may obtain a student pilot certificate for the flight from a FAA Flight Standards District Office (FSDO) or designated Flight Examiner upon presentation of the FAA Form 8500-9 (white medical certificate).

An alternative procedure for this situation is for the Examiner to issue the Airman Medical and Student Pilot Certificate, FAA Form 8420-2 (yellow), with the following statement in the limitations block of the student pilot certificate:

NOT VALID UNTIL (MONTH, DAY, AND YEAR OF 16TH BIRTHDAY)

This procedure should not be used if the applicant's 16th birthday will occur more than 30 days from the date of application.

Although nonmedical regulations allow an airman to solo a glider or balloon at age 14, a medical certificate is not required for glider or balloon operations. These airmen are required to certify to the FAA that they have no known physical defects that make them unable to pilot a glider or balloon. This certification is made at the FAA FSDO's.



There is a maximum age requirement for certain air carrier pilots. Because this is not a medical requirement but an operational one, the Examiner may issue medical certificates without regard to age to any applicant who meets the medical standards.

## **7. Color of Hair**

Color of hair should be entered as "brown," "black," "blonde," "gray," or "red." Lack of hair should be entered as "bald." No abbreviations or other colors should be used. This information is for identification only.

## **8. Color of Eyes**

Color of eyes should be entered as "brown," "black," "blue," "hazel," "gray," or "green." No abbreviations or other colors should be used. This information is for identification only.

## **9. Sex**

The applicant should enter either male or female.

## **10. Type of Airman Certificate(s) You Hold**

Applicant checks appropriate block(s).

**ITEMS 11-12. OCCUPATION; EMPLOYER**

|                |              |
|----------------|--------------|
| 11. Occupation | 12. Employer |
|----------------|--------------|

Occupational data are principally used for statistical purposes. This information, along with information obtained from Items 10, 14, and 15, may be important in determining whether a SODA may be issued, if applicable.

**11. Occupation**

This should reflect the applicant's major employment. "Pilot" should only be reported when the applicant earns a livelihood from flying.

**12. Employer**

The employer's name should be entered by the applicant.

**ITEM 13. HAS YOUR FAA AIRMAN MEDICAL CERTIFICATE EVER BEEN DENIED, SUSPENDED, OR REVOKED?**

|  |                             |                         |
|--|-----------------------------|-------------------------|
| 13. Has Your FAA Airman Certificate Ever Been Denied, Suspended, or Revoked? |                             |                         |
| <input type="checkbox"/> Yes   | <input type="checkbox"/> No | If yes, give date _____ |
| MM / DD / YYYY   |                             |                         |

The applicant shall check "yes" or "no." If "yes" is checked, the applicant should enter the date of action and should report details in the EXPLANATIONS box of Item 18.

The Examiner may not issue a medical certificate to an applicant who has checked "yes." The only exceptions to this prohibition are:

- The applicant presents written evidence from the FAA that he or she was subsequently medically certificated and that an Examiner is authorized to issue a renewal medical certificate to the person if medically qualified; or
- The Examiner obtains oral or written authorization to issue a medical certificate from an FAA medical office.

**ITEMS 14-15. TOTAL PILOT TIME**

|   |                   |
|---|-------------------|
| Total Pilot Time (Civilian Only)<br>14. To Date | 15. Past 6 months |
|---|-------------------|

**14. Total Pilot Time to Date**

The applicant should indicate the total number of *civilian* flight hours and whether those hours are logged (LOG) or estimated (EST).

**15. Total Pilot Time Past 6 Months**

The applicant should provide the number of *civilian* flight hours in the 6-month period immediately preceding the date of this application. The applicant should indicate whether those hours are logged (LOG) or estimated (EST).

**ITEM 16. DATE OF LAST FAA MEDICAL APPLICATION**

|                                      |  |
|--------------------------------------|--|
| Date of Last FAA Medical Application | <input type="checkbox"/><br>No Prior Application |
| MM/DD/YYYY                           |  |

If a prior application was made, the applicant should indicate the date of the last application, even if it is only an estimate of the year. This item should be completed even if the application was made many years ago or the previous application did not result in the issuance of a medical certificate. If no prior application was made, the applicant should check the appropriate block in Item 16.

**ITEM 17.a. DO YOU CURRENTLY USE ANY MEDICATION (PRESCRIPTION OR NONPRESCRIPTION)?**

|  |                          |                          |
|--|--------------------------|--------------------------|
| 17.a. Do You Currently Use Any Medication (Prescription or Nonprescription)? |                          |                          |
| (If yes, list below medication(s) used and check appropriate box).           |                          |                          |
| <input type="checkbox"/> No <input type="checkbox"/> Yes                     |                          |                          |
|  | Previously Reported      |                          |
|  | <u>Yes</u>               | <u>No</u>                |
|  | <input type="checkbox"/> | <input type="checkbox"/> |
|  | <input type="checkbox"/> | <input type="checkbox"/> |
|  | <input type="checkbox"/> | <input type="checkbox"/> |
|  | <input type="checkbox"/> | <input type="checkbox"/> |
| (If more space is required, see 17.a. on the instruction sheet).             |                          |                          |

If the applicant checks yes, give name of medication(s) and indicate if the medication was listed in a previous FAA medical examination.

This includes both prescription and nonprescription medication. (Additional guidelines for the certification of airmen who use medication may be found in Chapter 4).

For example, any airman who is undergoing continuous treatment with anticoagulants, antiviral agents, anxiolytics, barbiturates, chemotherapeutic agents, experimental hypoglycemic, investigational, mood-ameliorating, motion sickness, narcotic, sedating antihistaminic, sedative, steroid drugs, or tranquilizers must be deferred certification

*unless* the treatment has previously been cleared by FAA medical authority. In such an instance, the applicant should provide the Examiner with a copy of any FAA correspondence that supports the clearance.

During periods in which the foregoing medications are being used for treatment of acute illnesses, the airman is under obligation to refrain from exercising the privileges of his/her airman medical certificate unless cleared by the FAA.

Further information concerning an applicant's use of medication may be found under the items pertaining to specific medical condition(s) for which the medication is used, or you may contact your RFS.

**ITEM 17.b. DO YOU EVER USE NEAR VISION CONTACT LENS(ES) WHILE FLYING?**

|  |                          |     |                          |    |
|--|--------------------------|-----|--------------------------|----|
| 17.b. Do You Ever Use Near Vision Contact Lens(es) While Flying? | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
|--|--------------------------|-----|--------------------------|----|

The applicant should indicate whether near vision contact lens(es) is/are used while flying. If the applicant answers "yes," the Examiner should counsel the applicant that the use of contact lens(es) (bifocal or unifocal) specifically for the correction of near vision is/are inappropriate. The Examiner must note in Item 60 that this counseling has been given.

If the applicant checks "yes" and no further comment is noted on FAA Form 8500-8 by either the applicant or the Examiner, a letter will automatically be sent to the applicant informing him or her that the use of contact lens(es) specifically to correct near vision is/are inappropriate for flying.

**ITEM 18. MEDICAL HISTORY**

|   |                          |   |                             |                          |   |                             |                             |   |
|---|--------------------------|---|-----------------------------|--------------------------|---|-----------------------------|-----------------------------|---|
| <b>18. Medical History</b> - HAVE YOU EVER IN YOUR LIFE BEEN DIAGNOSED WITH, HAD, OR DO YOU PRESENTLY HAVE ANY OF THE FOLLOWING? Answer "yes" or "no" for every condition listed below. In the EXPLANATIONS box below, you may note "PREVIOUSLY REPORTED, NO CHANGE" only if the explanation of the condition was reported on a previous application for an airman medical certificate and there has been no change in your condition. <b>See Instructions Page</b> |                          |   |                             |                          |   |                             |                             |   |
| Yes   | No                       | Condition   | Yes                         | No                       | Condition   | Yes                         | No                          | Condition   |
| a. <input type="checkbox"/>   | <input type="checkbox"/> | Frequent or severe headaches  | g. <input type="checkbox"/> | <input type="checkbox"/> | Heart or vascular trouble   | m. <input type="checkbox"/> | <input type="checkbox"/>    | Mental disorders of any sort; depression, anxiety, etc.   |
| b. <input type="checkbox"/>   | <input type="checkbox"/> | Dizziness or fainting spell   | h. <input type="checkbox"/> | <input type="checkbox"/> | High or low blood pressure  | n. <input type="checkbox"/> | <input type="checkbox"/>    | Substance dependence or failed a drug test ever; or substance abuse or use of illegal substance in the last 2 years |
| c. <input type="checkbox"/>   | <input type="checkbox"/> | Unconsciousness for any reason  | i. <input type="checkbox"/> | <input type="checkbox"/> | Stomach, liver, or intestinal trouble                               | s. <input type="checkbox"/> |                             | Medical rejection by military service   |
| d. <input type="checkbox"/>   | <input type="checkbox"/> | Eye or vision trouble except glasses  | j. <input type="checkbox"/> | <input type="checkbox"/> | Kidney stone or blood in urine                                      | t. <input type="checkbox"/> |                             | Rejection for life or health insurance  |
| e. <input type="checkbox"/>   | <input type="checkbox"/> | Hay fever or allergy  | k. <input type="checkbox"/> | <input type="checkbox"/> | Diabetes  | o. <input type="checkbox"/> | <input type="checkbox"/>    | Alcohol dependence or abuse   |
| f. <input type="checkbox"/>   | <input type="checkbox"/> | Asthma or lung disease  | l. <input type="checkbox"/> | <input type="checkbox"/> | Neurological disorders; epilepsy, seizures, stroke, paralysis, etc. | p. <input type="checkbox"/> | <input type="checkbox"/>    | Suicide attempt   |
|   |                          |   |                             |                          |   | q. <input type="checkbox"/> | <input type="checkbox"/>    | Motion sickness requiring medication  |
|   |                          |   |                             |                          |   |                             | <input type="checkbox"/>    | Other illness, disability, or surgery   |
| <b>Conviction and/or Administrative Action History - See Instructions Page</b>  |                          |   |                             |                          |   |                             |                             |   |
| Yes   | No                       | History of (1) any conviction(s) involving driving while intoxicated by, while impaired by, or while under the influence of alcohol or a drug; or (2) history of any conviction(s) or administrative action(s) involving an offense(s) which resulted in the denial, suspension, cancellation, or revocation of driving privileges or which resulted in attendance at an educational or a rehabilitation program. |                             |                          |   |                             | Yes                         | No  |
| v. <input type="checkbox"/>   | <input type="checkbox"/> |   |                             |                          |   |                             | w. <input type="checkbox"/> | History of nontraffic conviction(s) (misdemeanors or felonies).   |
| <b>EXPLANATIONS:</b> <a href="#">See Instructions Page</a>  |                          |   |                             |                          |   |                             |                             | <b>For FAA Use</b><br><b>Review Action Codes</b>  |

Each item under this heading must be checked either "yes" or "no." For all items checked "yes," a description and approximate date of every condition the applicant has ever been diagnosed with, had, or presently has, must be given in the EXPLANATIONS box. If information has been reported on a previous application for airman medical certification and there has been no change in the condition, the applicant may note "PREVIOUSLY REPORTED, NO CHANGE" in the EXPLANATIONS box, but the applicant must still check "yes" to the condition.

Of particular importance are conditions that have developed since the last FAA medical examination. If more space is needed, a plain sheet of paper bearing the applicant's full printed name, date of birth, signature, and the date should be used.

*The Examiner must take the time to review the applicant's responses on FAA Form 8500-8 before starting the applicant's medical examination.*

The Examiner should ensure that the applicant has checked all of the boxes in Item 18 as either "yes" or "no." The Examiner should use information obtained from this review in asking the applicant pertinent questions during the course of the examination. Certain aspects of the individual's history may need to be elaborated upon. The Examiner should provide in Item 60 an explanation of the nature of items checked "yes" in Items 18.a. through 18.x. An additional sheet may be added if necessary.

Supplementary reports from the applicant's physician(s) should be obtained and forwarded to the AMCD, when necessary, to clarify the significance of an item of history.

The responsibility for providing such supplementary reports rests with the applicant. A discussion with the Examiner's RFS may clarify and expedite the certification process at that time.

Affirmative answers alone in Item 18 do not constitute a basis for denial of a medical certificate. A decision concerning issuance or denial should be made by applying the medical standards pertinent to the conditions uncovered by the history.

Experience has shown that, when asked direct questions by a physician, applicants are likely to be candid and willing to discuss medical problems.

The Examiner should attempt to establish rapport with the applicant and to develop a complete medical history. Further, the Examiner should be familiar with the FAA certification policies and procedures in order to provide the applicant with sound advice.

**18.a. Frequent or severe headaches.** The applicant should report frequency, duration, characteristics, severity of symptoms, neurologic manifestations, and whether they have been incapacitating, treatment and side effects, if any. (See Item 46, page 102).

**18.b. Dizziness or fainting spells.** The applicant should describe characteristics of the episode; e.g., spinning or lightheadedness, frequency, factors leading up to and surrounding the episode, associated neurologic symptoms; e.g., headache, nausea, LOC, or paresthesias. Include diagnostic workup and treatment if any. (See Items 25-30, page 39; and Item 46, page 102).

**18.c. Unconsciousness for any reason.** The applicant should describe the event(s) to determine the primary organ system responsible for the episode, witness statements, initial treatment, and evidence of recurrence or prior episode. Although the regulation states, "an unexplained disturbance of consciousness is disqualifying," it does not mean to imply that the applicant can be certificated if the etiology is identified, because the etiology may also be disqualifying in and of itself. (See Item 46, page 102).

**18.d. Eye or vision trouble except glasses.** The Examiner should personally explore the applicant's history by asking questions, concerning any changes in vision, unusual visual experiences (halos, scintillations, etc.), sensitivity to light, injuries, surgery, or current use of medication. Does the applicant report inordinate difficulties with eye fatigue or strain? Is there a history of serious eye disease such as glaucoma or other disease commonly associated with secondary eye changes, such as diabetes? For glaucoma or ocular hypertension, obtain a FAA Form 8500-14, Report of Eye Evaluation for Glaucoma. For any other medical condition, obtain a FAA Form 8500-7, Report of Eye Evaluation. Under all circumstances, please advise the examining eye specialist to explain why the airman is unable to correct to Snellen visual acuity of 20/20. (Also see Items 31-34, page 46; Item 53, page 141; and Item 54, page 143).

**18.e. Hay fever or allergy.** The applicant should report frequency and duration of symptoms, and whether they have been incapacitating by the condition. Mention

should also be made of treatment and side effects. The Examiner should inquire whether the applicant has ever experienced any “ear block”, barotitis, or any other symptoms that could interfere with aviation safety? Barosinusitis is of concern and should also be ruled out. (See Item 26, page 42).

**18.f. Asthma or lung disease.** The applicant should provide frequency and severity of asthma attacks, medications, and number of visits to the hospital and/or emergency room. For other lung conditions, a detailed description of symptoms/diagnosis, surgical intervention, and medications should be provided. (See Item 35, page 56).

**18.g. Heart or vascular trouble.** The applicant should describe the condition to include, dates, symptoms, and treatment, and provide medical reports to assist in the certification decision-making process. These reports should include: operative reports of coronary intervention to include the original cardiac catheterization report, stress tests, worksheets, and original tracings (or a legible copy). When stress tests are provided, forward the reports, worksheets and original tracings (or a legible copy) to the FAA. Part 67 provides that, for all classes of medical certificates, an established medical history or clinical diagnosis of myocardial infarction, angina pectoris, cardiac valve replacement, permanent cardiac pacemaker implantation, heart replacement, or coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant, is cause for denial. (See Item 36, page 63)

**18.h. High or low blood pressure.** The applicant should provide history and treatment. Issuance of a medical certificate to an applicant with high blood pressure may depend on the current blood pressure levels and whether the applicant is taking anti-hypertensive medication. The Examiner should also determine if the applicant has a history of complications, adverse reactions to therapy, hospitalization, etc. (Details are given in Items 36, page 63; and Item 55, page 145).

**18.i. Stomach, liver, or intestinal trouble.** The applicant should provide history and treatment, pertinent medical records, current status report, and medication. If a surgical procedure was done, the applicant must provide operative and pathology reports. (See Item 38, page 76).

**18.j. Kidney stone or blood in urine.** The applicant should provide history and treatment, pertinent medical records, current status report and medication. If a procedure was done, the applicant must provide the report and pathology reports. (See Item 41, page 85).

**18.k. Diabetes.** The applicant should describe the condition to include, symptoms and treatment. Comment on the presence or absence of hyperglycemic and/or hypoglycemic episodes. A medical history or clinical diagnosis of diabetes mellitus requiring insulin or other hypoglycemic drugs for control are disqualifying. The Examiner can help expedite the FAA review by assisting the applicant in gathering medical records and submitting a current specialty report. (See Item 48, page 122).

**18.l. Neurological disorders; epilepsy, seizures, stroke, paralysis, etc.** The applicant should provide history and treatment, pertinent medical records, current status report and medication. The Examiner should obtain details about such a history and report the results. An established diagnosis of epilepsy, a transient loss of control of nervous system function(s), or a disturbance of consciousness is a basis for denial no matter how remote the history. Like all other conditions of aeromedical concern, the history surrounding the event is crucial. Certification is possible if a satisfactory explanation can be established. (See Item 46, page 102).

**18.m. Mental disorders of any sort; depression, anxiety, etc.** An affirmative answer to Item 18.m. requires investigation through supplemental history taking. Dispositions will vary according to the details obtained. An applicant with an established history of a personality disorder that is severe enough to have repeatedly manifested itself by overt acts, a psychosis disorder, or a bipolar disorder must be denied or deferred by the Examiner. (See Items 46, page 102; and Item 47, page 114).

**18.n. Substance dependence; or failed a drug test ever; or substance abuse or use of illegal substance in the last 2 years.** "Substance" includes alcohol and other drugs (e.g., PCP, sedatives and hypnotics, anxiolytics, marijuana, cocaine, opioids, amphetamines, hallucinogens, and other psychoactive drugs or chemicals). For a "yes" answer to Item 18.n., the Examiner should obtain a detailed description of the history. A history of substance dependence or abuse is disqualifying. The Examiner must defer issuance of a certificate if there is doubt concerning an applicant's substance use. (See Item 47, page 114).

**18.o. Alcohol dependence or abuse.** See Item 18.n.

**18.p. Suicide attempt.** A history of suicidal attempts or suicidal gestures requires further evaluation. The ultimate decision of whether an applicant with such a history is eligible for medical certification rests with the FAA. The Examiner should take a supplemental history as indicated, assist in the gathering of medical records related to the incident(s), and, if the applicant agrees, assist in obtaining psychiatric and/or psychological examinations. (See Item 47, page 114).

**18.q. Motion sickness requiring medication.** A careful history concerning the nature of the sickness, frequency and need for medication is indicated when the applicant responds affirmatively to this item. Because motion sickness varies with the nature of the stimulus, it is most helpful to know if the problem has occurred in flight or under similar circumstances. (See Item 29, page 44).

**18.r. Military medical discharge.** If the person has received a military medical discharge, the Examiner should take additional history and record it in Item 60. It is helpful to know the circumstances surrounding the discharge, including dates, and whether the individual is receiving disability compensation. If the applicant is receiving veteran's disability benefits, the claim number and service number are helpful in obtaining copies of pertinent medical records. The fact that the applicant is receiving disability benefits does not necessarily mean that the application should be denied.



**18.s. Medical rejection by military service.** The Examiner should inquire about the place, cause, and date of rejection and enter the information in Item 60. It is of great assistance to the applicant and the FAA if the Examiner can help obtain copies of military documents for attachment to the FAA Form 8500-8. If a delay of more than 14-calendar days is expected, the Examiner should transmit FAA Form 8500-8 to the FAA with a note specifying what documents will be forwarded later under separate cover.

Disposition will depend upon whether the medical condition still exists or whether a history of such a condition requires denial or deferral under the FAA medical standards.

**18.t. Rejection for life or health insurance.** The Examiner should inquire regarding the circumstances of rejection. The supplemental history should be recorded in Item 60. Disposition will depend upon whether the medical condition still exists or whether a history of such a condition requires denial or deferral under the FAA medical standards.

**18.u. Admission to hospital.** For each admission, the applicant should list the dates, diagnoses, duration, treatment, name of the attending physician, and complete address of the hospital or clinic. If previously reported, the applicant may enter "PREVIOUSLY REPORTED, NO CHANGE." A history of hospitalization does not disqualify an applicant, although the medical condition that resulted in hospitalization may.

**18.v. Conviction and/or Administrative Action History.** The events to be reported are specifically identified in Item 18.v. of FAA Form 8500-8. If "yes" is checked, the applicant must describe the conviction(s) and/or administrative action(s) in the EXPLANATIONS box. The description must include:

- The alcohol or drug offense for which the applicant was convicted or the type of administrative action involved (e.g., attendance at an educational or rehabilitation program in lieu of conviction; license denial, suspension, cancellation, or revocation for refusal to be tested; educational safe driving program for multiple speeding convictions; etc.);
- The name of the state or other jurisdiction involved; and
- The date of the conviction and/or administrative action.

If there have been no new convictions or administrative actions since the last application, the applicant may enter "PREVIOUSLY REPORTED, NO CHANGE." Convictions and/or administrative actions affecting driving privileges may raise questions about the applicant's fitness for certification and may be cause for disqualification. (See Items 18.n. and 47, page 114).

A single driving while intoxicated (DWI) conviction or administrative action usually is not cause for denial if there are no other instances or indications of substance dependence

or abuse. The Examiner should inquire regarding the applicant's alcohol use history, the circumstances surrounding the incident, and document those findings in Item 60, page 151. (See Item 47, page 114).

**NOTE: The Examiner should advise the applicant that the reporting of alcohol or drug offenses (i.e., motor vehicle violation) on the history part of the medical application does not relieve the airman of responsibility to report each motor vehicle action to the FAA within 60 days of the occurrence to the Civil Aviation Security Division, AAC-700; P.O. Box 25810; Oklahoma City, OK 73125-0810.**

**18.w. History of nontraffic convictions.** The applicant must report any other (nontraffic) convictions (e.g., assault, battery, public intoxication, robbery, etc.). The applicant must name the charge for which convicted and the date of the conviction(s), and copies of court documents (if available). (See Item 47, page 114).

**18.x. Other illness, disability, or surgery.** The applicant should describe the nature of these illnesses in the EXPLANATIONS box. If additional records, tests, or specialty reports are necessary in order to make a certification decision, the applicant should so be advised. If the applicant does not wish to provide the information requested by the Examiner, the Examiner should defer issuance.

If the applicant wishes to have the FAA review the application and decide what ancillary documentation is needed, the Examiner should defer issuance of the medical certificate and forward the completed FAA Form 8500-8 to the AMCD. If the Examiner proceeds to obtain documentation, but all data will not be received within the 2 weeks, FAA Form 8500-8 should be transmitted immediately to the AMCD with a note that additional documents will be forwarded later under separate cover.

## ITEM 19. VISITS TO HEALTH PROFESSIONAL WITHIN LAST 3 YEARS

| 19. Visits to Health Professional Within Last 3 Years |  |        | <input type="checkbox"/> Yes<br>(Explain Below) | <input type="checkbox"/> NO | See Instructions Page |
|---|--|--------|---|-----------------------------|-----------------------|
| Date  | Name, Address, and Type of Health Professional Consulted | Reason |   |                             |                       |
|   |  |        |   |                             |                       |
|   |  |        |   |                             |                       |
|   |  |        |   |                             |                       |

The applicant should list all visits in the last 3 years to a physician, physician assistant, nurse practitioner, psychologist, clinical social worker, or substance abuse specialist for treatment, examination, or medical/mental evaluation. The applicant should list visits for counseling only if related to a personal substance abuse or psychiatric condition. The applicant should give the name, date, address, and type of health professional

consulted and briefly state the reason for the consultation. Multiple visits to one health professional for the same condition may be aggregated on one line.

Routine dental, eye, and FAA periodic medical examinations and consultations with an employer-sponsored employee assistance program (EAP) may be excluded unless the consultations were for the applicant's substance abuse or unless the consultations resulted in referral for psychiatric evaluation or treatment.

When an applicant does provide history in Item 19, the Examiner should review the matter with the applicant. The Examiner will record in Item 60 only that information needed to document the review and provide the basis for a certification decision. If the Examiner finds the information to be of a personal or sensitive nature with no relevancy to flying safety, it should be recorded in Item 60 as follows:

"Item 19. Reviewed with applicant. History not significant or relevant to application."

If the applicant is otherwise qualified, a medical certificate may be issued by the Examiner.

FAA medical authorities, upon review of the application, will ask for further information regarding visits to health care providers only where the physical findings, report of examination, applicant disclosure, or other evidence suggests the possible presence of a disqualifying medical history or condition.

If an explanation has been given on a previous report(s) and there has been no change in the condition, the applicant may enter "PREVIOUSLY REPORTED, NO CHANGE."

Of particular importance is the reporting of conditions that have developed since the applicant's last FAA medical examination. The Examiner is asked to comment on all entries, including those "PREVIOUSLY REPORTED, NO CHANGE." These comments may be entered under Item 60.

ITEM 20. APPLICANT'S NATIONAL DRIVER REGISTER AND CERTIFYING DECLARATION

|   |   |                        |
|---|---|------------------------|
| <p>— NOTICE —</p> <p>Whoever in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or who makes any false, fictitious or fraudulent statements or representations, or entry, may be fined up to \$250,000 or imprisoned not more than 5 years, or both, (18 U.S. Code Secs. 1001; 3571).</p> | <p>20. Applicant's National Driver Register and Certifying Declarations</p> <p>I hereby authorize the National Driver Register (NDR), through a designated State Department of Motor Vehicles, to furnish to the FAA information pertaining to my driving record. This consent constitutes authorization for a single access to the information contained in the NDR to verify information provided in this application. Upon my request, the FAA shall make the information received from the NDR, if any, available for my review and written comment. Authority: 23 U.S. Code 401, Note.</p> <p>NOTE: All persons using this form must sign it. NDR consent, however, does not apply unless this form is used as an application for Medical Certificate or Medical Certificate and Student Pilot Certificate.</p> <p>I hereby certify that all statements and answers provided by me on this application form are complete and true to the best of my knowledge, and I agree that they are to be considered part of the basis for issuance of any FAA certificate to me. I have also read and understand the Privacy Act statement that accompanies this form.</p> |                        |
|   | Signature of Applicant  | Date<br><br>MM DD YYYY |

In addition to making a declaration of the completeness and truthfulness of the applicant's responses on the medical application, the applicant's declaration authorizes the National Driver Register to release the applicant's adverse driving history information, if any, to the FAA. The FAA uses such information to verify information provided in the application. The applicant should be instructed to sign Item 20 after reading the declaration. The signature should be in ink. If an applicant does not sign the declaration for any reason, the Examiner shall not issue a medical certificate but forward the incomplete application to the AMCD.

## CHAPTER 3

### EXAMINATION TECHNIQUES AND CRITERIA FOR QUALIFICATION

#### ITEMS 21- 48 of FAA Form 8500-8

The Examiner must personally conduct the physical examination. This chapter provides guidance for completion of Items 21-48 of the Application for Airman Medical Certificate or Airman Medical and Student Pilot Certificate, FAA Form 8500-8.

The Examiner must carefully read the applicant's history page of FAA Form 8500-8 (Items 1-20) *before* conducting the physical examination and completing the Report of Medical Examination. This alerts the Examiner to possible pathological findings.

The Examiner must note in Item 60 of the FAA Form 8500-8 any condition found in the course of the examination. The Examiner must list the facts, such as dates, frequency, and severity of occurrence.

When a question arises, the Federal Air Surgeon encourages Examiners first to check this Guide for Aviation Medical Examiners and other FAA informational documents. If the question remains unresolved, the Examiner should seek advice from a RFS or the Manager of the AMCD.

#### ITEMS 21-22. HEIGHT AND WEIGHT

|                     |                     |
|---------------------|---------------------|
| 21. Height (inches) | 22. Weight (pounds) |
|---------------------|---------------------|

##### ITEM 21. Height

Record the applicant's height in inches. Although there are no medical standards for height, exceptionally short individuals may not be able to effectively reach all flight controls and must fly specially modified aircraft. If required, the FAA will place operational limitations on the pilot certificate.

##### ITEM 22. Weight

Record the applicant's weight in pounds.

**ITEMS 23-24. STATEMENT OF DEMONSTRATED ABILITY (SODA); SODA SERIAL NUMBER**

|   |                             |               |
|---|-----------------------------|---------------|
| <b>23. Statement of Demonstrated Ability (SODA)</b> |                             |               |
| <input type="checkbox"/> Yes                        | <input type="checkbox"/> No | Defect Noted: |

**ITEM 23. Has a SODA ever been issued?**

Ask the applicant if a SODA has ever been issued. If the answer is "yes," ask the applicant to show you the document. Then check the "yes" block and record the nature and degree of the defect.

SODA's are valid for an indefinite period or until an adverse change occurs that results in a level of defect worse than that stated on the face of the document.

The FAA issues SODA's for certain static defects, but not for disqualifying condition or conditions that may be progressive. The extent of the functional loss that has been cleared by the FAA is stated on the face of the SODA. If the Examiner finds the condition has become worse, a medical certificate should not be issued even if the applicant is otherwise qualified. The Examiner should also defer issuance if it is unclear whether the applicant's present status represents an adverse change.

The Examiner must take special care not to issue a medical certificate of a higher class than that specified on the face of the SODA even if the applicant appears to be otherwise medically qualified. The Examiner may note in Item 60 the applicant's desire for a higher class.

**ITEM 24. SODA Serial Number**

|                               |
|-------------------------------|
| <b>24. SODA Serial Number</b> |
|                               |

Enter the assigned serial number in the space provided.

## ITEMS 25-30. EAR, NOSE AND THROAT (ENT)

| CHECK EACH ITEM IN APPROPRIATE COLUMN                                   | Normal | Abnormal |
|---|--------|----------|
| 25. Head, face, neck, and scalp   |        |          |
| 26. Nose  |        |          |
| 27. Sinuses   |        |          |
| 28. Mouth and Throat  |        |          |
| 29. Ears, general (internal and external canals: Hearing under Item 49) |        |          |
| 30. Ear Drums (Perforation)   |        |          |

### I. Code of Federal Regulations

#### All Classes: 14 CFR 67.105(b)(c), 67.205(b)(c), and 67.305(b)(c)

(b) No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that -

(1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so; or

(2) Interferes with, or may reasonably be expected to interfere with, clear and effective speech communication.

(c) No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

### II. Examination Techniques

1. The **head and neck** should be examined to determine the presence of any significant defects such as:

- a. Bony defects of the skull
- b. Gross deformities
- c. Fistulas
- d. Evidence of recent blows or trauma to the head
- e. Limited motion of the head and neck
- f. Surgical scars

2. The **external ear** is seldom a major problem in the medical certification of applicants. Otitis externa or a furuncle may call for temporary disqualification. Obstruction of the

canal by impacted cerumen or cellular debris may indicate a need for referral to an ENT specialist for examination.

The tympanic membranes should be examined for scars or perforations. Discharge or granulation tissue may be the only observable indication of perforation. Middle ear disease may be revealed by retraction, fluid levels, or discoloration. The normal tympanic membrane is movable and pearly gray in color. Mobility should be demonstrated by watching the drum through the otoscope during a valsalva maneuver.

3. Pathology of the **middle ear** may be demonstrated by changes in the appearance and mobility of the tympanic membrane. The applicant may only complain of stuffiness of the ears and/or loss of hearing. An upper respiratory infection greatly increases the risk of aerotitis media with pain, deafness, tinnitus, and vertigo due to lessened aeration of the middle ear from eustachian tube dysfunction. When the applicant is taking medication for an ENT condition, it is important that the Examiner become fully aware of the underlying pathology, present status, and the length of time the medication has been used. If the condition is not a threat to aviation safety, the treatment consists solely of antibiotics, and the antibiotics have been taken over a sufficient period to rule out the likelihood of adverse side effects, the Examiner may make the certification decision.

The same approach should be taken when considering the significance of prior surgery such as myringotomy, mastoidectomy, or tympanoplasty. Simple perforation without associated symptoms or pathology is not disqualifying. When in doubt, the Examiner should not hesitate to defer issuance and refer the matter to the AMCD. The services of consultant ENT specialists are available to the FAA to help in determining the safety implications of complicated conditions.

4. **Unilateral Deafness.** An applicant with unilateral congenital or acquired deafness should not be denied medical certification if able to pass any of the tests of hearing acuity.

5. **Bilateral Deafness.** It is possible for a totally deaf person to qualify for a private pilot certificate. When such an applicant initially applies for medical certification, if otherwise qualified, the AMCD may issue a combination medical/student pilot certificate with the limitation "Valid for Student Pilot Purposes Only." This will allow the student to practice with an instructor before undergoing a pilot check ride for the private pilot's license. When the applicant is ready to take the check ride, he/she must contact AMCD or the RFS for authorization to take a medical flight test (MFT). Upon successful completion of the MFT, the applicant will be issued a SODA, and an operational restriction will be placed on his/her pilot's license that restricts the pilot from flying into airspace requiring radio communication.

6. **Hearing Aids.** Under some circumstances, the use of hearing aids may be acceptable. If the applicant is unable to pass any of the above tests without the use of hearing aids, he or she may be tested using hearing aids.



7. The **nose** should be examined for the presence of polyps, blood, or signs of infection, allergy, or substance abuse. The Examiner should determine if there is a history of epistaxis with exposure to high altitudes and if there is any indication of loss of sense of smell (anosmia). Polyps may cause airway obstruction or sinus blockage. Infection or allergy may be cause for obtaining additional history. Anosmia is at least noteworthy in that the airman should be made fully aware of the significance of the handicap in flying (inability to receive early warning of gas spills, oil leaks, or smoke). Further evaluation may be warranted.
8. Evidence of **sinus** disease must be carefully evaluated by a specialist because of the risk of sudden and severe incapacitation from barotrauma.
9. The **mouth and throat** should be examined to determine the presence of active disease that is progressive or may interfere with voice communications. Gross abnormalities that could interfere with the use of personal equipment such as oxygen equipment should be identified.
10. The **larynx** should be visualized if the applicant's voice is rough or husky. Acute laryngitis is temporarily disqualifying. Chronic laryngitis requires further diagnostic workup. Any applicant seeking certification for the first time with a functioning tracheostomy, following laryngectomy, or who uses an artificial voice-producing device should be denied or deferred and carefully assessed.

### III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

**ITEM 25. HEAD, FACE, NECK, AND SCALP**

| <b>DISEASE/CONDITION</b>   | <b>CLASS</b>          | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>  |
|--|-----------------------|--|---|
| <b>Head, Face, Neck, and Scalp</b>   |                       |  |   |
| Active fistula of neck, either congenital or acquired, including tracheostomy                              | All                   | Submit all pertinent medical information and current status report | Requires FAA Decision   |
| Loss of bony substance involving the two tables of the cranial vault                                       | All                   | Submit all pertinent medical information and current status report | Requires FAA Decision   |
| Deformities of the face or head that would interfere with the proper fitting and wearing of an oxygen mask | 1 <sup>st</sup> & 2nd | Submit all pertinent medical information and current status report | Requires FAA Decision   |
|  | 3rd                   | Submit all pertinent medical information                           | If deformity does not interfere with administration of supplemental O <sub>2</sub><br>- Issue |

**ITEM 26. NOSE**

| <b>DISEASE/CONDITION</b>                          | <b>CLASS</b> | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>    |
|---|--------------|--|-----------------------|
| <b>Nose</b>                                       |              |  |                       |
| Evidence of severe allergic rhinitis <sup>1</sup> | All          | Submit all pertinent medical information and current status report | Requires FAA Decision |

<sup>1</sup> Hay fever controlled solely by desensitization without requiring antihistamines or other medications is not disqualifying. Applicants with seasonal allergies requiring antihistamines may be certified by the Examiner with the stipulation that they not exercise privileges of airman certification within 24 hours of experiencing symptoms requiring treatment or within 24 hours after taking an antihistamine. The Examiner should document this in Item 60. However, non-sedating antihistamines loratadine or fexofenadine may be used while flying, after adequate individual experience has determined that the medication is well tolerated without significant side effects.

| DISEASE/CONDITION  | CLASS | EVALUATION DATA  | DISPOSITION           |
|--|-------|--|-----------------------|
| <b>Nose</b>  |       |  |                       |
| Obstruction of sinus ostia, including polyps, that would be likely to result in complete obstruction | All   | Submit all pertinent medical information and current status report | Requires FAA Decision |

**ITEM 27. SINUSES**

| DISEASE/CONDITION   | CLASS | EVALUATION DATA  | DISPOSITION   |
|---|-------|--|---|
| <b>Sinuses - Acute or Chronic</b>   |       |  |   |
| Sinusitis, intermittent use of topical or non-sedating medication               | All   | Document medication, dose and absence of side effects              | Responds to treatment without any side effects - Issue  |
| Severe-requiring continuous use of medication or effected by barometric changes | All   | Submit all pertinent medical information and current status report | Requires FAA Decision   |
| <b>Sinus Tumor</b>  |       |  |   |
| Benign - Cysts/Polyps   | All   | If no physiologic effects, submit documentation                    | Asymptomatic, no observable growth over a 12-month period, no potential for sinus block - Issue |
| Malignant   | All   | Submit all pertinent medical information and current status report | Requires FAA Decision   |

**ITEM 28. MOUTH AND THROAT**

| <b>DISEASE/CONDITION</b>   | <b>CLASS</b> | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>    |
|--|--------------|--|-----------------------|
| <b>Mouth and Throat</b>  |              |  |                       |
| Any malformation or condition, including stuttering, that would impair voice communication | All          | Submit all pertinent medical information and current status report | Requires FAA Decision |
| Palate: Extensive adhesion of the soft palate to the pharynx                               | All          | Submit all pertinent medical information and current status report | Requires FAA Decision |

**ITEM 29. EARS, GENERAL**

| <b>DISEASE/CONDITION</b>  | <b>CLASS</b> | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>  |
|---|--------------|--|---|
| <b>Inner Ear</b>  |              |  |   |
| Acute or chronic disease without disturbance of equilibrium and successful myringotomy, if applicable | All          | Submit all pertinent medical information                           | If no physiologic effects - Issue   |
| Acute or chronic disease that may disturb equilibrium   | All          | Submit all pertinent medical information and current status report | Requires FAA Decision   |
| Motion Sickness   | All          | Submit all pertinent medical information and current status report | If occurred during flight training and resolved - Issue<br><br>If condition requires medication - Requires FAA Decision |

| <b>DISEASE/CONDITION</b>  | <b>CLASS</b> | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>   |
|---|--------------|--|--|
| <b>Mastoids</b>   |              |  |  |
| Mastoid fistula   | All          | Submit all pertinent medical information and current status report                                   | Requires FAA Decision  |
| Mastoiditis, acute or chronic   | All          | Submit all pertinent medical information and current status report                                   | Requires FAA Decision  |
| <b>Middle Ear</b>   |              |  |  |
| Acoustic Neuroma  | All          | Submit all pertinent medical information and current status report<br>* See Neurology Table page 113 | Requires FAA Decision  |
| Impaired Aeration   | All          | Submit all pertinent medical information and current status report                                   | Requires FAA Decision  |
| Otitis Media  | All          | Submit all pertinent medical information and current status report                                   | If acute and resolved – Issue<br><br>If active or chronic - Requires FAA Decision      |
| <b>Outer Ear</b>  |              |  |  |
| Impacted Cerumen  | All          | Submit all pertinent medical information and current status report                                   | If asymptomatic and hearing is unaffected - Issue<br>Otherwise - Requires FAA Decision |
| Otitis Externa that may progress to impaired hearing or become incapacitating | All          | Submit all pertinent medical information and current status report                                   | Requires FAA Decision  |

**ITEM 30. EAR DRUMS**

| DISEASE/CONDITION  | CLASS | EVALUATION DATA   | DISPOSITION                       |
|--|-------|---|-----------------------------------|
| <b>Ear Drums</b>   |       |   |                                   |
| Perforation that has associated pathology                          | All   | Establish etiology, treatment, and submit all pertinent medical information | Requires FAA Decision             |
| Perforation which has resolved without any other clinical symptoms | All   | Submit all pertinent medical information                                    | If no physiologic effects - Issue |

Otologic Surgery. A history of otologic surgery is not necessarily disqualifying for medical certification. The FAA evaluates each case on an individual basis following review of the otologist's report of surgery. The type of prosthesis used, the person's adaptability and progress following surgery, and the extent of hearing acuity attained are all major factors to be considered. Examiners should defer issuance to an applicant presenting a history of otologic surgery for the first time, sending the completed report of medical examination, with all available supplementary information, to the AMCD.

Some conditions may have several possible causes or exhibit multiple symptomatology. Episodic disorders of dizziness or disequilibrium require careful evaluation and consideration by the FAA. Transient processes, such as those associated with acute labyrinthitis or benign positional vertigo may not disqualify an applicant when fully recovered. (Also see Item 46, page 102 for a discussion of syncope and vertigo).

**ITEMS 31-34. EYE**

| CHECK EACH ITEM IN APPROPRIATE COLUMN                        | Normal | Abnormal |
|--|--------|----------|
| 31. Eyes, general (vision under Items 50 to 54)              |        |          |
| 32. Ophthalmoscopic  |        |          |
| 33. Pupils (Equity and reaction)                             |        |          |
| 34. Ocular motility (Associated parallel movement nystagmus) |        |          |

**I. Code of Federal Regulations****All Classes: 14 CFR 67.103(e), 67.203(e), and 67.303(d)**

(e) No acute or chronic pathological condition of either the eye or adnexa that interferes with the proper function of the eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying.

## II. Examination Techniques

For guidance regarding the conduction of visual acuity, field of vision, heterophoria, and color vision tests, please refer to Chapter 4, Items 50-54, page 132.

The examination of the eyes should be directed toward the discovery of diseases or defects that may cause a failure in visual function while flying or discomfort sufficient to interfere with safely performing airman duties.

The Examiner should personally explore the applicant's history by asking questions concerning any changes in vision, unusual visual experiences (halos, scintillations, etc.), sensitivity to light, injuries, surgery, or current use of medication. Does the applicant report inordinate difficulties with eye fatigue or strain? Is there a history of serious eye disease such as glaucoma or other disease commonly associated with secondary eye changes, such as diabetes? (Also see Item 53, page 141; and Item 54, page 143).

1. It is recommended that the Examiner consider the following signs during the course of the eye examination:

- a. *Color* — redness or suffusion of allergy, drug use, glaucoma, infection, trauma, jaundice, ciliary flush of Iritis, and the green or brown Kayser-Fleischer Ring of Wilson's disease.
- b. *Swelling* — abscess, allergy, cyst, exophthalmos, myxedema, or tumor.
- c. *Other* — clarity, discharge, dryness, ptosis, protosis, spasm (tic), tropion, or ulcer.

2. Ophthalmoscopic examination. It is suggested that a routine be established for ophthalmoscopic examinations to aid in the conduct of a comprehensive eye assessment. Routine use of a mydriatic is not recommended.

- a. *Cornea* — observe for abrasions, calcium deposits, contact lenses, dystrophy, keratoconus, pterygium, scars, or ulceration. Contact lenses should be removed several hours before examination of the eye. (See Item 50, page 132).
- b. *Pupils and Iris* — check for the presence of synechiae and uveitis. Size, shape, and reaction to light should be evaluated during the ophthalmoscopic examination. Observe for coloboma, reaction to light, or disparity in size.
- c. *Aqueous* — hyphema or iridocyclitis.
- d. *Lens* — observe for aphakia, discoloration, dislocation, cataract, or an implanted lens.

- e. *Vitreous* — note discoloration, hyaloid artery, floaters, or strands.
- f. *Optic nerve* — observe for atrophy, hemorrhage, cupping, or papilledema.
- g. *Retina and choroid* — examine for evidence of coloboma, choroiditis, detachment of the retina, diabetic retinopathy, retinitis, retinitis pigmentosa, retinal tumor, macular or other degeneration, toxoplasmosis, etc.

3. Ocular Motility. Motility may be assessed by having the applicant follow a point light source with both eyes, the Examiner moving the light into right and left upper and lower quadrants while observing the individual and the conjugate motions of each eye. The Examiner then brings the light to center front and advances it toward the nose observing for convergence. End point nystagmus is a physiologic nystagmus and is not considered to be significant. It need not be reported. (See Item 50, page 132 for further consideration of nystagmus).

4. Monocular Vision. An applicant will be considered monocular when there is only one eye or when the best corrected distant visual acuity in the poorer eye is no better than 20/200. An individual with one eye, or effective visual acuity equivalent to monocular, may be considered for medical certification, any class, through the special issuance section of part 67 (14 CFR 67.401).

In amblyopia ex anopsia, the visual acuity loss is simply recorded in Item 50 of FAA Form 8500-8, and visual standards are applied as usual. If the standards are not met, a Report of Eye Evaluation, FAA Form 8500-7, should be submitted for consideration.

Although it has been repeatedly demonstrated that binocular vision is not a prerequisite for flying, some aspects of depth perception, either by stereopsis or by monocular cues, are necessary. It takes time for the monocular airman to develop the techniques to interpret the monocular cues that substitute for stereopsis; such as, the interposition of objects, convergence, geometrical perspective, distribution of light and shade, size of known objects, aerial perspective, and motion parallax.

In addition, it takes time for the monocular airman to compensate for his or her decrease in effective visual field. A monocular airman's effective visual field is reduced by as much as 30% by monocularity. This is especially important because of speed smear; i.e., the effect of speed diminishes the effective visual field such that normal visual field is decreased from 180 degrees to as narrow as 42 degrees or less as speed increases. A monocular airman's reduced effective visual field would be reduced even further than 42 degrees by speed smear.

For the above reasons, a waiting period of 6 months is recommended to permit an adequate adjustment period for learning techniques to interpret monocular cues and accommodation to the reduction in the effective visual field.



Applicants who have had monovision secondary to refractive surgery may be certificated, providing they have corrective vision available that would provide binocular vision in accordance with the vision standards, while exercising the privileges of the certificate. The certificate issued must have the appropriate vision limitations statement.

5. Contact Lenses. The use of a contact lens in one eye for distant visual acuity (monovision) and another in the other eye for near or intermediate visual acuity is not acceptable for aviation duties. Experience has indicated no significant risk to aviation safety in the use of contact lenses for distant vision correction. As a consequence, no special evaluation is routinely required before the use of contact lenses is authorized, and no SODA is required or issued to a contact lens wearer who meets the standards and has no complications.

Designer contact lenses that introduce color (tinted lenses), restrict the field of vision, or significantly diminish transmitted light, are not acceptable.

Bifocal contact lenses or contact lenses that correct for near and/or intermediate vision only are **not** considered acceptable for aviation duties.

6. Orthokeratology is acceptable for medical certification purposes, provided the airman can demonstrate corrected visual acuity in accordance with medical standards defined in 14 CFR part 67. When corrective contact lenses are required to meet vision standards, the medical certificate must have the appropriate limitation annotated. Advise airmen that they must follow the prescribed or proper use of orthokeratology lenses to ensure compliance with 14 CFR 61.53. Airmen should consider possible rotation, changes, or extensions of their work schedules when deciding on orthokeratology retainer lens use.

7. Glaucoma. The Examiner should deny or defer issuance of a medical certificate to an applicant if there is a loss of visual fields, a significant change in visual acuity, a diagnosis of or treatment for glaucoma, or newly diagnosed intraocular hypertension.

The FAA may grant an Authorization under the special issuance section of Part 67 (14 CFR 67.401) on an individual basis. The Examiner can facilitate FAA review by obtaining a report of Ophthalmological Evaluation for Glaucoma (FAA Form 8500-14) from a treating or evaluating ophthalmologist, also see AME assisted protocol. Because secondary glaucoma is caused by known pathology such as; uveitis or trauma, eligibility must largely depend upon that pathology. Secondary glaucoma is often unilateral, and if the cause or disease process is no longer active and the other eye remains normal certification is likely.

Applicants with primary or secondary narrow angle glaucoma are usually denied because of the risk of an attack of angle closure, because of incapacitating symptoms of severe pain, nausea, transitory loss of accommodative power, blurred vision, halos, epiphora, or iridoparesis. Central venous occlusion can occur with catastrophic loss of vision. However, when surgery such as iridectomy or iridencleisis has been performed

satisfactorily more than 3 months before the application, the likelihood of difficulties is considerably more remote, and applicants in that situation may be favorably considered by the FAA.

An applicant with unilateral or bilateral open angle glaucoma may be certified by the FAA (with follow-up required) when a current ophthalmological report substantiates that pressures are under adequate control, there is little or no visual field loss or other complications, and the person tolerates small to moderate doses of allowable medications. Individuals who have had filter surgery for their glaucoma, or combined glaucoma/cataract surgery, can be considered when stable and without complications. A few applicants have been certified following their demonstration of adequate control with oral medication. Neither miotics nor mydriatics are necessarily medically disqualifying.

However, miotics such as pilocarpine cause pupillary constriction and could conceivably interfere with night vision. Although the FAA no longer routinely prohibits pilots who use such medications from flying at night, it may be worthwhile for the Examiner to discuss this aspect of the use of miotics with applicants. If considerable disturbance in night vision is documented, the FAA may limit the medical certificate: NOT VALID FOR NIGHT FLYING

8. Sunglasses. Sunglasses are not acceptable as the only means of correction to meet visual standards, but may be used for backup purposes if they provide the necessary correction. Airmen should be encouraged to use sunglasses in bright daylight but must be cautioned that, under conditions of low illumination, they may compromise vision. Mention should be made that sunglasses do not protect the eyes from the effects of ultra violet radiation without special glass or coatings and that photosensitive lenses are unsuitable for aviation purposes because they respond to changes in light intensity too slowly. The so-called "blue blockers" may not be suitable since they block the blue light used in many current panel displays. Polarized sunglasses are unacceptable if the windscreen is also polarized.

9. Refractive Surgery. An applicant who has been treated with refractive surgery may be issued a medical certificate by the Examiner if the applicant meets the visual acuity standards and the Report of Eye Evaluation (FAA Form 8500-7) indicates that healing is complete, visual acuity remains stable, and the applicant does not suffer sequela such as; glare intolerance, halos, rings, impaired night vision, or any other complications. This state of recovery is usually reached within 6- to 12-weeks after surgery. The Examiner may, of course, defer issuance and forward the ophthalmology report to the AMCD.

General Information: Applicants with many of the foregoing conditions may be found qualified for FAA certification following the receipt and review of specialty evaluations and pertinent medical records. Examples include retinal detachment with surgical correction, open angle glaucoma under adequate control with medication, and narrow angle glaucoma following surgical correction.

The Examiner may not issue a certificate under such circumstances for the initial application, except in the case of applicants following cataract surgery. The Examiner may issue a certificate after cataract surgery for applicants who have undergone cataract surgery with or without lens(es) implant. If pertinent medical records and a current ophthalmologic evaluation (using FAA Form 8500-7 or FAA Form 8500-14) indicate that the applicant meets the standards, the FAA may delegate authority to the Examiner to issue subsequent certificates.

If there is a question regarding the need for a current specialty evaluation, the Examiner should not obtain the evaluation, but should instead transmit the completed application (FAA Form 8500-8) and forward any available medical records to the AMCD.

### **III. Aerospace Medical Disposition**

Applicants with many visual conditions may be found qualified for FAA certification following the receipt and review of specialty evaluations and pertinent medical records. Examples include retinal detachment with surgical correction, open angle glaucoma under adequate control with medication, and narrow angle glaucoma following surgical correction.

The Examiner may not issue a certificate under such circumstances for the initial application, except in the case of applicants following cataract surgery. The Examiner may issue a certificate after cataract surgery for applicants who have undergone cataract surgery with or without lens(es) implant. If pertinent medical records and a current ophthalmologic evaluation (using FAA Form 8500-7 or FAA Form 8500-14) indicate that the applicant meets the standards, the FAA may delegate authority to the Examiner to issue subsequent certificates.

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

**ITEM 31. EYES, GENERAL**

| <b>DISEASE/CONDITION</b>   | <b>CLASS</b> | <b>EVALUTION DATA</b>  | <b>DISPOSITION</b>   |
|--|--------------|--|--|
| <b>Eyes, General</b>   |              |  |  |
| Amblyopia <sup>2</sup><br><br>Initial certification  | All          | Provide completed FAA Form 8500-7<br><br>Note: applicant should be at best corrected visual acuity before evaluation         | If applicant does not correct to standards, add the following limitation to the medical certificate: "Valid for Student Pilot Purposes Only, " and request a medical flight test |
| Any ophthalmic pathology reflecting a serious systemic disease (e.g., diabetic and hypertensive retinopathy)                 | All          | Submit all pertinent medical information and current status report. (If applicable, see Diabetes and Hypertensive Protocols) | Requires FAA Decision  |
| Any other acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of an eye | All          | Submit all pertinent medical information and current status report   | Requires FAA Decision  |
| Aphakia/Lens Implants  | All          | Submit all pertinent medical information and current status report (See additional disease dependent requirements)           | If visual acuity meets standards - Issue<br><br>Otherwise - Requires FAA Decision  |

<sup>2</sup> In amblyopia ex anopsia, the visual acuity of one eye is decreased without presence of organic eye disease, usually because of strabismus or anisometropia in childhood.

| DISEASE/CONDITION  | CLASS | EVALUTION DATA  | DISPOSITION  |
|--|-------|---|--|
| <b>Eyes, General</b>                                       |       |   |  |
| Diplopia   | All   | If applicant provides written evidence that the FAA has previously considered and determined that this condition is not adverse to flight safety. A MFT may be requested. | Contact RFS for approval to Issue<br><br>Otherwise - Requires FAA Decision   |
| Hereditary, acquired conditions or congenital <sup>3</sup> | All   | Provide completed FAA Form 8500-7<br>Note: applicant should be at best corrected visual acuity before evaluation  | Requires FAA Decision  |
| Pterygium  | All   | Document findings in Item #60   | If less than 50% of the cornea and not effecting central vision<br>- Issue<br>Otherwise - Requires FAA Decision          |
| Refractive Surgery   | All   | Provide completed FAA Form 8500-7, type and date of procedure, statement as to any complications (halo, glare, haze, rings, etc.)   | If visual acuity meets standards, is stable, and no complications exist - Issue<br><br>Otherwise - Requires FAA Decision |

<sup>3</sup> Whether acute or chronic, of either eye or adnexa, that may interfere with visual functions, may progress to that degree, or may be aggravated by flying (tumors and ptosis obscuring the pupil, acute inflammatory disease of the eyes and lids, cataracts, or orthokeratology).

**ITEM 32. OPHTHALMOSCOPIC**

| <b>DISEASE/CONDITION</b>  | <b>CLASS</b> | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>  |
|---|--------------|--|---|
| <b>Ophthalmoscopic</b>  |              |  |   |
| Chorioretinitis;<br>Coloboma;<br>Corneal Ulcer or<br>Dystrophy;<br>Optic Atrophy or Neuritis;<br>Retinal Degeneration or<br>Detachment;<br>Retinitis Pigmentosa;<br>Papilledema; or Uveitis | All          | Submit all pertinent<br>medical information and<br>current status report | Requires FAA<br>Decision  |
| Glaucoma (treated or<br>untreated)  | All          | Submit all pertinent<br>medical information and<br>current status report | <b>Initial Special<br/>Issuance</b> - Requires<br>FAA Decision<br><br><b>Followup<br/>Special Issuance's</b><br>- See AASI Protocol |
| Macular Degeneration;<br>Macular Detachment   | All          | Submit all pertinent<br>medical information and<br>current status report | Requires FAA<br>Decision  |
| Tumors  | All          | Submit all pertinent<br>medical information and<br>current status report | Requires FAA<br>Decision  |
| Vascular Occlusion;<br>Retinopathy  | All          | Submit all pertinent<br>medical information and<br>current status report | Requires FAA<br>Decision  |

**ITEM 33. PUPILS**

| <b>DISEASE/CONDITION</b>  | <b>CLASS</b> | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>    |
|---|--------------|--|-----------------------|
| <b>Pupils</b>   |              |  |                       |
| Disparity in size or reaction to light (afferent pupillary defect) requires clarification and/or further evaluation | All          | Submit all pertinent medical information and current status report | Requires FAA Decision |
| Nonreaction to light in either eye acute or chronic   | All          | Submit all pertinent medical information and current status report | Requires FAA Decision |
| Nystagmus <sup>4</sup>  | All          | Submit all pertinent medical information and current status report | Requires FAA Decision |
| Synechiae, anterior or posterior  | All          | Submit all pertinent medical information and current status report | Requires FAA Decision |

**ITEM 34. OCULAR MOTILITY**

| <b>DISEASE/CONDITION</b>                       | <b>CLASS</b> | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>    |
|--|--------------|--|-----------------------|
| <b>Ocular Motility</b>                         |              |  |                       |
| Absence of conjugate alignment in any quadrant | All          | Submit all pertinent medical information and current status report | Requires FAA Decision |

<sup>4</sup>Nystagmus of recent onset is cause to deny or defer certificate issuance. Any recent neurological or other evaluations available to the Examiner should be submitted to the AMCD. If nystagmus has been present for a number of years and has not recently worsened, it is usually necessary to consider only the impact that the nystagmus has upon visual acuity. The Examiner should be aware of how nystagmus may be aggravated by the forces of acceleration commonly encountered in aviation and by poor illumination.

| DISEASE/CONDITION                                     | CLASS | EVALUATION DATA  | DISPOSITION           |
|---|-------|--|-----------------------|
| <b>Ocular Motility</b>                                |       |  |                       |
| Inability to converge on a near object                | All   | Submit all pertinent medical information and current status report | Requires FAA Decision |
| Paralysis with loss of ocular motion in any direction | All   | Submit all pertinent medical information and current status report | Requires FAA Decision |

## ITEM 35. LUNGS AND CHEST

|   |        |          |
|---|--------|----------|
| CHECK EACH ITEM IN APPROPRIATE COLUMN                   | Normal | Abnormal |
| 35. Lungs and chest (Not including breasts examination) |        |          |

### I. Code of Federal Regulations

#### All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges;

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.



## II. Examination Techniques

Breast examination: The breast examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a breast examination is performed, the results are to be recorded in Item 60 of FAA Form 8500-8. The applicant should be advised of any abnormality that is detected, then deferred for further evaluation.

## III. Aerospace Medical Dispositions

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

| DISEASE/CONDITION | CLASS | EVALUATION DATA   | DISPOSITION           |
|-------------------|-------|---|-----------------------|
| <b>Allergies</b>  |       |   |                       |
| Allergies, severe | All   | Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects | Requires FAA Decision |

| DISEASE/CONDITION   | CLASS | EVALUATION DATA  | DISPOSITION   |
|---|-------|--|---|
| <b>Allergies</b>  |       |  |   |
| Hay fever controlled solely by desensitization without antihistamines or other medications <sup>567</sup> | All   | Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects        | If responds to treatment and without side effects<br>- Issue<br><br>Otherwise - Requires FAA Decision                 |
| <b>Asthma</b>   |       |  |   |
| Frequent severe asthmatic symptoms  | All   | Submit all pertinent medical information and current status report, include PFT's, duration of symptoms, name and dosage of drugs and side effects | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |

<sup>5</sup> Applicants with seasonal allergies requiring antihistamines may be certified by the Examiner with the stipulation that they not exercise privileges of airman certification within 24 hours of experiencing symptoms requiring treatment or within 24 hours after taking an antihistamine. The Examiner should document this in Item 60.

<sup>6</sup> Individuals who have hay fever that requires only occasional seasonal therapy may be certified by the Examiner with the stipulation that they not fly during the time when symptoms occur and treatment is required.

<sup>7</sup> Nonsedating antihistamines including loratadine, or fexofenadine may be used while flying, after adequate individual experience has determined that the medication is well tolerated without significant side effects.

| DISEASE/CONDITION  | CLASS | EVALUATION DATA  | DISPOSITION   |
|--|-------|--|---|
| <b>Asthma</b>  |       |  |   |
| Mild or seasonal asthmatic symptoms <sup>8</sup>               | All   | Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs, and side effects | If attacks are infrequent and no symptoms in flight - Issue   |
| <b>Chronic Obstructive Pulmonary Disease (COPD)</b>            |       |  |   |
| Chronic bronchitis, emphysema, or COPD <sup>9</sup>            | All   | Submit all pertinent medical information and current status report. Include an FVC/FEV1  | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |
| <b>Infectious Disease of the Lungs, Pleura, or Mediastinum</b> |       |  |   |
| Abscesses  | All   | Submit all pertinent medical information and current status report   | Requires FAA Decision   |
| Active Mycotic disease   |       |  |   |
| Active Tuberculosis  |       |  |   |

<sup>8</sup> If the applicant otherwise meets the medical standards and currently requires no treatment, the Examiner may Issue. However, a history of frequent severe attacks is disqualifying. Certificate issuance may be possible in other cases. If additional information is obtained, it must be submitted to the FAA.

<sup>9</sup> Certification may be granted, by the FAA, when the condition is mild without significant impairment of pulmonary functions. If the applicant has frequent exacerbations or any degree of exertional dyspnea, certification should be deferred.

| DISEASE/CONDITION  | CLASS | EVALUATION DATA  | DISPOSITION   |
|--|-------|--|---|
| <b>Infectious Disease of the Lungs, Pleura, or Mediastinum</b> |       |  |   |
| Fistula, Bronchopleural, to include Thoracostomy               | All   | Submit all pertinent medical information and current status report   | Requires FAA Decision   |
| Lobectomy  | All   | Submit all pertinent medical information and current status report   | Requires FAA Decision   |
| Pulmonary Fibrosis   | All   | Submit all pertinent medical information, current status report, PFT's with diffusion capacity   | If >75% predicted and no impairment - Issue<br><br>Otherwise - Requires FAA Decision                                  |
| <b>Sleep Apnea</b>   |       |  |   |
| Obstructive Sleep Apnea  | All   | Submit all pertinent medical information and current status report. Include sleep study with a polysomnogram, use of medications and titration study results   | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |
| Periodic Limb Movement, etc.                                   | All   | Submit all pertinent medical information and current status report. Include sleep study with a polysomnogram, use of medications and titration study results, along with a statement regarding Restless Leg Syndrome | Requires FAA Decision   |

| DISEASE/CONDITION  | CLASS | EVALUATION DATA   | DISPOSITION                          |
|--|-------|---|--------------------------------------|
| <b>Pleura and Pleural Cavity</b>   |       |   |                                      |
| Acute fibrinous pleurisy;<br><br>Empyema;<br><br>Pleurisy with effusion;<br>or Pneumonectomy   | All   | Submit all pertinent medical information and current status report, and PFT's | Requires FAA Decision                |
| Malignant tumors or cysts of the lung, pleura, mediastinum, or the breast  | All   | Submit all pertinent medical information and current status report            | Requires FAA Decision                |
| Other diseases or defects of the lungs or chest wall that require use of medication or that could adversely affect flying or endanger the applicant's well-being if permitted to fly | All   | Submit all pertinent medical information and current status report            | Requires FAA Decision                |
| Pneumothorax - Traumatic   | All   | Submit all pertinent medical information and current status report            | If 3 months after resolution - Issue |
| Sarcoid, if more than minimal involvement or if symptomatic  | All   | Submit all pertinent medical information and current status report            | Requires FAA Decision                |

| DISEASE/CONDITION                      | CLASS | EVALUATION DATA  | DISPOSITION                                      |
|--|-------|--|--|
| <b>Pleura and Pleural Cavity</b>       |       |  |  |
| Spontaneous pneumothorax <sup>10</sup> | All   | Submit all pertinent medical information and current status report | Requires FAA Decision                            |
| <b>Pulmonary</b>                       |       |  |  |
| Bronchiectasis                         | All   | Submit all pertinent medical information and current status report | If moderate to severe -<br>Requires FAA Decision |

<sup>10</sup> A history of a single episode of spontaneous pneumothorax is considered disqualifying for airman medical certification until there is x-ray evidence of resolution and until it can be determined that no condition that would be likely to cause recurrence is present (i.e., residual blebs). On the other hand, an individual who has sustained a repeat pneumothorax normally is not eligible for certification until surgical interventions are carried out to correct the underlying problem. A person who has such a history is usually able to resume airmen duties 3 months after the surgery. No special limitations on flying at altitude are applied.

## ITEM 36. HEART

| CHECK EACH ITEM IN APPROPRIATE COLUMN                        | Normal | Abnormal |
|--|--------|----------|
| 36. Heart (Precordial activity, rhythm, sounds, and murmurs) |        |          |

### I. Code of Federal Regulations:

#### First-Class: 14 CFR 67.111(a)(b)(c)

Cardiovascular standards for first-class airman medical certificate are:

(a) No established medical history or clinical diagnosis of any of the following:

- (1) Myocardial infarction
- (2) Angina pectoris
- (3) Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant
- (4) Cardiac valve replacement
- (5) Permanent cardiac pacemaker implantation; or
- (6) Heart replacement

(b) A person applying for first-class airman medical certification must demonstrate an absence of myocardial infarction and other clinically significant abnormality on electrocardiographic examination:

- (1) At the first application after reaching the 35th birthday; and
- (2) On an annual basis after reaching the 40th birthday

(c) An electrocardiogram will satisfy a requirement of paragraph (b) of this section if it is dated no earlier than 60 days before the date of the application it is to accompany and was performed and transmitted according to acceptable standards and techniques.

**Second- and Third-Class: 14 CFR 67.211(a)(b)(c)(d)(e)(f) and  
67.311(a)(b)(c)(d)(e)(f)**

Cardiovascular standards for a second- and third-class airman medical certificate are no established medical history or clinical diagnosis of any of the following:

- (a) Myocardial infarction
- (b) Angina pectoris
- (c) Coronary heart disease that has required treatment or, if untreated, that has been symptomatic or clinically significant
- (d) Cardiac valve replacement
- (e) Permanent cardiac pacemaker implantation; or
- (f) Heart replacement

**II. Examination Techniques**

**A. General Physical Examination.**

1. A brief description of any comment-worthy personal characteristics as well as height, weight, representative blood pressure readings in both arms, funduscopic examination, condition of peripheral arteries, carotid artery auscultation, heart size, heart rate, heart rhythm, description of murmurs (location, intensity, timing, and opinion as to significance), and other findings of consequence must be provided.

2. The Examiner should keep in mind some of the special cardiopulmonary demands of flight, such as changes in heart rates at takeoff and landing. High G-forces of aerobatics or agricultural flying may stress both systems considerably. Degenerative changes are often insidious and may produce subtle performance decrements that may require special investigative techniques.

a. Inspection. Observe and report any thoracic deformity (e.g., pectus excavatum), signs of surgery or other trauma, and clues to ventricular hypertrophy. Check the hematopoietic and vascular system by observing for pallor, edema, varicosities, stasis ulcers, and venous distention. Check the nail beds for capillary pulsation and color.

b. Palpation. Check for thrills and the vascular system for arteriosclerotic changes, shunts, or AV anastomoses. The pulses should be examined to determine their character, to note if they are diminished or absent, and to observe for synchronicity. The medical standards do not specify pulse rates that, per se, are disqualifying for medical certification. These tests are used,



however, to determine the status and responsiveness of the cardiovascular system. Abnormal pulse rates may be reason to conduct additional cardiovascular system evaluations.

(1). Bradycardia of less than 50 beats per minute, any episode of tachycardia during the course of the examination, and any other irregularities of pulse other than an occasional ectopic beat or sinus arrhythmia must be noted and reported. If there is bradycardia, tachycardia, or arrhythmia further evaluation may be warranted and deferral may be indicated.

(2). A cardiac evaluation may be needed to determine the applicant's qualifications. Temporary stresses or fever may, at times, result in abnormal results from these tests. If the Examiner believes this to be the case, the applicant should be given a few days to recover and then be retested. If this is not possible, the Examiner should defer issuance, pending further evaluation.

c. Percussion. Determine heart size, diaphragmatic elevation/excursion, abnormal densities in the pulmonary fields, and mediastinal shift.

d. Auscultation. Check for resonance, asthmatic wheezing, ronchi, rales, cavernous breathing of emphysema, pulmonary or pericardial friction rubs, quality of the heart sounds, murmurs, heart rate, and rhythm. If a murmur is discovered during the course of conducting a routine FAA examination, report its character, loudness, timing, transmission, and change with respiration. It should be noted whether it is functional or organic and if a special examination is needed. If the latter is indicated, the Examiner should defer issuance of the medical certificate and transmit the completed FAA Form 8500-8 to the FAA for further consideration. Listen to the neck for bruits.

It is recommended that the Examiner conduct the auscultation of the heart with the applicant both in a sitting and in a recumbent position.

Aside from murmur, irregular rhythm, and enlargement, the Examiner should be careful to observe for specific signs that are pathognomonic for specific disease entities or for serious generalized heart disease. Examples of such evidence are: (1) the opening snap at the apex or fourth left intercostal space signifying mitral stenosis; (2) gallop rhythm indicating serious impairment of cardiac function; and (3) the middiastolic rumble of mitral stenosis.

**B. When General Examinations Reveal Heart Problems.**

These specifications have been developed by the FAA to determine an applicant's eligibility for airman medical certification. Standardization of examination methods and reporting is essential to provide sufficient basis for making determinations and the prompt processing of applications.

1. This cardiovascular evaluation, therefore, must be reported in sufficient detail to permit a clear and objective evaluation of the cardiovascular disorder(s) with emphasis on the degree of functional recovery and prognosis. It should be forwarded to the FAA immediately upon completion. Inadequate evaluation, reporting, or failure to promptly submit the report to the FAA may delay the certification decision.

a. Medical History. Particular reference should be given to cardiovascular abnormalities-cerebral, visceral, and/or peripheral. A statement must be included as to whether medications are currently or have been recently used, and if so, the type, purpose, dosage, duration of use, and other pertinent details must be provided. A specific history of any anticoagulant drug therapy is required. In addition, any history of hypertension must be fully developed and if thiazide diuretics are being taken, values for serum potassium should be reported, as well as any important or unusual dietary programs.

b. Family, Personal, and Social History. A statement of the ages and health status of parents and siblings is required; if deceased, cause and age at death should be included. Also, any indication of whether any near blood relative has had a "heart attack," hypertension, diabetes, or known disorder of lipid metabolism must be provided. Smoking, drinking, and recreational habits of the applicant are pertinent as well as whether a program of physical fitness is being maintained. Comments on the level of physical activities, functional limitations, occupational, and avocational pursuits are essential.

c. Records of Previous Medical Care. If not previously furnished to the FAA, a copy of pertinent hospital records as well as out-patient treatment records with clinical data, x-ray, laboratory observations, and originals or copies of all electrocardiographic (ECG) tracings should be provided. Detailed reports of surgical procedures as well as cerebral and coronary arteriography and other major diagnostic studies are of prime importance.

d. Surgery. The presence of an aneurysm or obstruction of a major vessel of the body is disqualifying for medical certification of any class. Following successful surgical intervention and correction, the applicant may ask for FAA consideration. The FAA recommends that the applicant recover for at least 3 months for ATCS's and 6 months for airmen.

A history of coronary artery bypass surgery is disqualifying for certification. Such surgery does not negate a past history of coronary heart disease. The presence of

permanent cardiac pacemakers and artificial heart valves is also disqualifying for certification.

The FAA will consider an Authorization for a Special Issuance of a Medical Certificate (Authorization) for most cardiac conditions. Applicants seeking further FAA consideration should be prepared to submit all past records and a report of a complete current cardiovascular evaluation in accordance with FAA specifications.

### C. Medication.

1. Medications acceptable to the FAA for treatment of hypertension in applicants include all Food and Drug Administration (FDA) approved diuretics, alpha-adrenergic blocking agents, beta-adrenergic blocking agents, calcium channel blocking agents, angiotension converting enzyme (ACE inhibitors) agents, and direct vasodilators. Centrally acting agents (such as, reserpine, guanethidine, guanadrel, guanabenz, and methyldopa) are usually **not** acceptable to the FAA. Dosage levels should be the minimum necessary to obtain optimal clinical control and should not be modified to influence the certification decision.

2. The Examiner may submit for the Federal Air Surgeon's review requests for Authorization under the special issuance section of part 67 (14 CFR 67.401) in cases in which these or other usually unacceptable medications are used. Specialty evaluations are required in such cases and must provide information on why the specific drug is required. The Examiner's own recommendation should be included. The Examiner must defer issuance of a medical certificate to any applicant whose hypertension is being treated with unacceptable medications. The use of nitrates for the treatment for coronary artery disease or to modify hemodynamics is unacceptable.

The use of flecainide is unacceptable when there is evidence of left ventricular dysfunction or recent myocardial infarction.

## III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

| DISEASE/CONDITION                    | CLASS | EVALUATION DATA  | DISPOSITION  |
|--------------------------------------|-------|--|--|
| <b>Arrhythmias</b>                   |       |  |  |
| Bradycardia<br>(<50 bpm)             | All   | Document history and findings, CVE Protocol, and submit any tests deemed appropriate | If no evidence of structural, functional or coronary heart disease<br>- Issue<br><br>Otherwise - Requires FAA Decision                                 |
| Left Bundle Branch Block             | All   | CVE Protocol and radionuclide GXT scan   | If no evidence of structural, functional or coronary heart disease<br>- Issue<br><br>Otherwise - Requires FAA Decision                                 |
| Acquired Right Bundle Branch Block   | All   | CVE Protocol and radionuclide GXT scan   | If no evidence of structural, functional or coronary heart disease<br>- Issue<br><br>Otherwise - Requires FAA Decision                                 |
| History of Implanted Pacemakers      | All   | See Implanted Pacemaker Protocol   | Requires FAA Decision  |
| PAC<br>(2 or more on ECG)            | All   | Requires evaluation, e.g., check for MVP, caffeine, pulmonary disease, thyroid, etc. | If no evidence of structural, functional or coronary heart disease<br>- Issue<br><br>Otherwise - Requires FAA Decision                                 |
| PVC's<br>(2 or more on standard ECG) | All   | Max GXT – to include a baseline ECG  | If no evidence of structural, functional or coronary heart disease and PVC's resolve with exercise<br>- Issue<br><br>Otherwise - Requires FAA Decision |

| DISEASE/CONDITION                                   | CLASS | EVALUATION DATA   | DISPOSITION  |
|---|-------|---|--|
| <b>Arrhythmias</b>                                  |       |   |  |
| 1 <sup>st</sup> Degree<br>AV Block                  | All   | Document history and findings, CVE Protocol, and submit any tests deemed appropriate    | If no evidence of structural, functional or coronary heart disease<br>- Issue<br><br>Otherwise - Requires FAA Decision |
| 2 <sup>nd</sup> Degree<br>AV Block<br><br>Mobitz I  | All   | Document history and findings, CVE Protocol, and submit any tests deemed appropriate    | If no evidence of structural, functional or coronary heart disease<br>- Issue<br><br>Otherwise - Requires FAA Decision |
| 2 <sup>nd</sup> Degree<br>AV Block<br><br>Mobitz II | All   | CVE Protocol in accordance w/ Hypertensive Evaluation Specifications and 24-hour Holter | Requires FAA Decision  |
| 3 <sup>rd</sup> Degree<br>AV Block                  | All   | CVE Protocol in accordance w/ Hypertensive Evaluation Specifications and 24-hour Holter | Requires FAA Decision  |
| Preexcitation                                       | All   | CVE Protocol, GXT, and 24-hour Holter   | Requires FAA Decision  |
| RF Ablation   | All   | 3-month wait, then 24-hour Holter   | If Holter negative for arrhythmia, no recurrence – Issue<br>Otherwise - Requires FAA Decision                          |

| DISEASE/CONDITION                           | CLASS | EVALUATION DATA  | DISPOSITION  |
|---|-------|--|--|
| <b>Arrhythmias</b>                          |       |  |  |
| Supraventricular Tachycardia                | All   | CHD Protocol with ECHO and 24-hour Holter  | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol            |
| Syncope                                     | All   | CHD Protocol with ECHO and 24-hour Holter; bilat-carotid US<br>* See Neurology Table, page 111 | Requires FAA Decision  |
| <b>Atrial Fibrillation</b>                  |       |  |  |
| History of Atrial Fibrillation >5 years ago | All   | Document previous workup for CAD and structural heart disease                                  | If no ischemia, no history of emboli, no structural or functional heart disease - Issue<br><br>Otherwise - Requires FAA Decision |
| Chronic                                     | All   | CHD Protocol with ECHO and 24-hour Holter  | Requires FAA Decision  |
| Paroxysmal/Lone                             | All   | CHD Protocol with ECHO and 24-hour Holter  | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol            |

**NOTE:** Syncope, not satisfactorily explained or recurrent requires deferral (even though the syncope episode may be medically explained, an aeromedical certification decision may still be precluded). Syncope may involve cardiovascular, neurological, and psychiatric factors.

| DISEASE/CONDITION                                    | CLASS | EVALUATION DATA                      | DISPOSITION   |
|--|-------|--------------------------------------|---|
| <b>Coronary Heart Disease</b>                        |       |                                      |   |
| Angina Pectoris                                      | All   | See CHD Protocol                     | Requires FAA Decision   |
| Myocardial Infarct                                   | All   | See CHD Protocol                     | Requires FAA Decision   |
| Atherectomy; CABG;<br>PTCA; Rotoblation; or<br>STENT | All   | See CHD Protocol                     | Requires FAA Decision   |
| <b>Hypertension</b>                                  |       |                                      |   |
| Hypertension requiring<br>medication                 |       | See Hypertension<br>Protocol         | If controlled and no<br>complications<br>- Issue<br><br>Otherwise - Requires<br>FAA Decision  |
| <b>Valvular Disease</b>                              |       |                                      |   |
| All Other Valvular<br>Disease                        | All   | CHD Protocol<br>with ECHO            | Requires FAA Decision   |
| Aortic and Mitral<br>Insufficiency                   | All   | CHD Protocol<br>with ECHO            | <b>Initial Special<br/>Issuance</b> - Requires<br>FAA Decision<br><br><b>Followup<br/>Special Issuance's</b> -<br>See AASI Protocol |
| Valve Replacement                                    | All   | See Valve<br>Replacement<br>Protocol | Requires FAA Decision   |
| Valvuloplasty  | All   | See Valvuloplasty<br>Protocol        | Requires FAA Decision   |

## Other Cardiac Conditions

The following conditions must be deferred:

1. Heart Transplant – at the present time, due to the unpredictability of segmental coronary artery disease, certification is not being granted.
2. Cardiac decompensation.
3. Congenital heart disease accompanied by cardiac enlargement, ECG abnormality, or evidence of inadequate oxygenation.
4. Hypertrophy or dilatation of the heart as evidenced by clinical examination and supported by diagnostic studies.
5. Pericarditis, endocarditis, or myocarditis.
6. When cardiac enlargement or other evidence of cardiovascular abnormality is found, the decision is deferred to AMCD or RFS. If the applicant wishes further consideration, a consultation will be required "preferably" from the applicant's treating physician. It must include a narrative report of evaluation and be accompanied by an ECG with report and appropriate laboratory test results which may include, as appropriate, 24-hour Holter monitoring, thyroid function studies, ECHO, and an assessment of coronary artery status. The report and accompanying materials should be forwarded to the AMCD or RFS.
7. Anti-tachycardia devices or implantable defibrillators.
8. With the possible exceptions of aspirin and dipyridamole taken for their effect on blood platelets, the use of anticoagulants or other drugs for treatment or prophylaxis of fibrillation may preclude medical certification.
9. A history of cardioversion or drug treatment, *per se*, does not rule out certification. A current, complete cardiovascular evaluation will be required. A 3-month observation period must elapse after the procedure before consideration for certification.
10. Any other cardiac disorder not otherwise covered in this section.
11. For all classes, certification decisions will be based on the applicant's medical history and current clinical findings. Certification is unlikely unless the information is highly favorable to the applicant. Evidence of extensive multi-vessel disease, impaired cardiac functioning, precarious coronary circulation, etc., will preclude certification. Before an applicant undergoes coronary angiography, it is recommended that all records and the report of a current cardiovascular evaluation, including a maximal electrocardiographic exercise stress test, be submitted to the FAA for preliminary review. Based upon this information, it may be possible to advise an applicant of the likelihood of favorable consideration.



12. A history of low blood pressure requires elaboration. If the Examiner is in doubt, it is usually better to defer issuance rather than to deny certification for such a history.

### ITEM 37. VASCULAR SYSTEM

| CHECK EACH ITEM IN APPROPRIATE COLUMN | Normal | Abnormal |
|---------------------------------------|--------|----------|
| 37. Vascular System                   |        |          |

#### I. Code of Federal Regulations

##### All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges;

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

#### II. Examination Techniques

1. Inspection. Observe and report any thoracic deformity (e.g., pectus excavatum), signs of surgery or other trauma, and clues to ventricular hypertrophy. Check the hematopoietic and vascular system by observing for pallor, edema, varicosities, stasis ulcers, venous distention, nail beds for capillary pulsation, and color.

2. Palpation. Check for thrills and the vascular system for arteriosclerotic changes, shunts or AV anastomoses. The pulses should be examined to determine their character, to note if they are diminished or absent, and to observe for synchronicity.

3. Percussion. N/A.
4. Auscultation. Check for bruits and thrills.

### III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

| DISEASE/CONDITIONS   | CLASS | EVALUATION DATA   | DISPOSITION  |
|--|-------|---|--|
| <b>Vascular Conditions</b>   |       |   |  |
| Aneurysm<br>(Abdominal or Thoracic)  | All   | Submit all available medical documentation  | Requires FAA Decision  |
| Aneurysm<br>(Status Post Repair)   | All   | Submit all documentation in accordance with CVE Protocol, and include a GXT                           | Requires FAA Decision  |
| Arteriosclerotic Vascular disease with evidence of circulatory obstruction | All   | Submit all documentation in accordance with CVE Protocol, and include a GXT, and CAD US if applicable | Requires FAA Decision  |
| Buerger's Disease  | All   | Document history and findings   | If no impairment and no symptoms in flight<br>- Issue<br><br>Otherwise - Requires FAA Decision |

| DISEASE/CONDITION                    | CLASS                 | EVALUATION DATA   | DISPOSITION   |
|--------------------------------------|-----------------------|---|---|
| <b>Vascular Conditions</b>           |                       |   |   |
| Peripheral Edema                     | All                   | The underlying medical condition must not be disqualifying                | <p>If findings can be explained by normal physiologic response or secondary to medication(s)<br/>- Issue</p> <p>Otherwise -<br/>Requires FAA Decision</p>                             |
| Raynaud's Disease                    | All                   | Document history and findings   | <p>If no impairment<br/>- Issue</p> <p>Otherwise - Requires<br/>FAA Decision</p>  |
| Phlebothrombosis or Thrombophlebitis | 1 <sup>st</sup> & 2nd | See Thrombophlebitis Protocol   | Requires FAA Decision   |
|                                      | 3rd                   | <p>Document history and findings</p> <p>See Thrombophlebitis Protocol</p> | <p>A single episode resolved, not currently treated with anticoagulants, and a negative evaluation<br/>- Issue</p> <p>If history of multiple episodes - Requires<br/>FAA Decision</p> |

**ITEM 38. ABDOMEN AND VISCERA**

| CHECK EACH ITEM IN APPROPRIATE COLUMN      | Normal | Abnormal |
|--|--------|----------|
| 38. Abdomen and viscera (including hernia) |        |          |

**I. Code of Federal Regulations****All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)**

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

**II. Examination Techniques**

1. Observation: The Examiner should note any unusual shape or contour, skin color, moisture, temperature, and presence of scars. Hernias, hemorrhoids, and fissure should be noted and recorded.

A history of acute gastrointestinal disorders is usually not disqualifying once recovery is achieved, e.g., acute appendicitis.

Many chronic gastrointestinal diseases may preclude issuance of a medical certificate (e.g., cirrhosis, chronic hepatitis, malignancy, ulcerative colitis). Colostomy following surgery for cancer may be allowed by the FAA with special followup reports.

The Examiner should not issue a medical certificate if the applicant has a recent history of bleeding ulcers or hemorrhagic colitis. Otherwise, ulcers must not have been active within the past 3 months.

In the case of a history of bowel obstruction, a report on the cause and present status of the condition must be obtained from the treating physician.

2. Palpation: The Examiner should check for and note enlargement of organs, unexplained masses, tenderness, guarding, and rigidity.

### **III. Aerospace Medical Disposition**

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

| DISEASE/CONDITION                              | CLASS | EVALUATION DATA   | DISPOSITION   |
|--|-------|---|---|
| <b>Abdomen and Viscera and Anus Conditions</b> |       |   |   |
| Cholelithiasis                                 | All   | Document history and findings   | If asymptomatic - Issue<br><br>Otherwise - Requires FAA Decision  |
| Cirrhosis (Alcoholic)                          | All   | See Substance Abuse/Dependence Disposition in Item 47, page 119   | Requires FAA Decision   |
| Cirrhosis (Non-Alcoholic)                      | All   | Submit all pertinent medical records, current status report, to include history of encephalopathy; PT/PTT; albumin; liver enzymes; bilirubin; CBC; and other testing deemed necessary | Requires FAA Decision   |
| Hepatitis                                      | All   | Submit all pertinent medical records, current status report to include any other testing deemed necessary   | If disease is resolved without sequela - Issue<br><br>Otherwise - Requires FAA Decision                               |
| Hepatitis C                                    | All   | Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects   | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |

| DISEASE/CONDITION   | CLASS | EVALUATION DATA   | DISPOSITION   |
|---|-------|---|---|
| <b>Abdomen and Viscera and Anus Conditions</b>              |       |   |   |
| Inguinal, Ventral or Hiatal Hernia                          | All   | Document history and findings   | If symptomatic; likely to cause any degree of obstruction - Requires FAA Decision<br><br>Otherwise - Issue            |
| Liver Transplant  | All   | Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects | Requires FAA decision   |
| Splenomegaly  | All   | Provide hematologic workup  | Requires FAA Decision   |
| <b>Malignancies</b>   |       |   |   |
| Colitis (Ulcerative, Regional Enteritis or Crohn's disease) | All   | Submit all pertinent medical information and current status report, include duration of symptoms, name and dosage of drugs and side effects | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |
| Colon/Rectal Cancer   | All   | Submit all pertinent medical records, operative/ pathology reports, current oncological status report; and current CEA and CBC              | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |

| DISEASE/CONDITION   | CLASS | EVALUATION DATA  | DISPOSITION           |
|---------------------|-------|--|-----------------------|
| <b>Malignancies</b> |       |  |                       |
| Other Malignancies  | All   | Submit all pertinent medical records, operative/ pathology reports, current oncological status report, including tumor markers, and any other testing deemed necessary | Requires FAA Decision |
| Peptic Ulcer        | All   | See Peptic Ulcer Protocol  | Requires FAA Decision |

An applicant with an ileostomy or colostomy may also receive FAA consideration. A report is necessary to confirm that the applicant has fully recovered from the surgery and is completely asymptomatic.

In the case of a history of bowel obstruction, a report on the cause and present status of the condition must be obtained from the treating physician.

### ITEM 39. ANUS

| CHECK EACH ITEM IN APPROPRIATE COLUMN       | Normal | Abnormal |
|---|--------|----------|
| 39 Anus (Not including digital examination) |        |          |

### I. Code of Federal Regulations

#### All Classes: 14 CFR 67.113(a), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.



(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

## II. Examination Techniques

1. Digital Rectal Examination: This examination is performed only at the applicant's option unless indicated by specific history or physical findings. When performed, the following should be noted and recorded in Item 59 of FAA Form 8500-8.

2. If the digital rectal examination is not performed, the response to Item 39 may be based on direct observation or history.

### ITEM 40. SKIN

| CHECK EACH ITEM IN APPROPRIATE COLUMN | NORMAL | ABNORMAL |
|---------------------------------------|--------|----------|
| 40. Skin                              |        |          |

## I. Code of Federal Regulations

### All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

## **II. Examination Techniques**

A careful examination of the skin may reveal underlying systemic disorders of clinical importance. For example, thyroid disease may produce changes in the skin and fingernails. Cushing's disease may produce abdominal striae, and abnormal pigmentation of the skin occurs with Addison's disease.

Needle marks that suggest drug abuse should be noted and body marks and scars should be described and correlated with known history. Further history should be obtained as needed to explain findings.

## **III. Aerospace Medical Disposition**

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

| <b>DISEASE/CONDITION</b>   | <b>CLASS</b> | <b>EVALUATION DATA</b>  | <b>DISPOSITION</b>    |
|--|--------------|---|-----------------------|
| <b>Cutaneous</b>   |              |   |                       |
| Dermatomyositis;<br>Deep Mycotic Infections;<br>Eruptive Xanthomas;<br>Hansen's Disease;<br>Lupus Erythematosus;<br>Raynaud's Phenomenon;<br>Sarcoid; or Scleroderma | All          | Submit all pertinent medical information and current status report  | Requires FAA Decision |
| Kaposi's Sarcoma   | All          | Submit all pertinent medical information and current status report.<br>See HIV Protocol   | Requires FAA Decision |
| <b>Malignant Melanoma</b>  |              |   |                       |
| Melanoma Breslow Level >.75 mm with/without any metastasis   | All          | Submit all pertinent medical records, operative/ pathology reports, and current oncological status report, and current MRI of the brain | Requires FAA Decision |

| <b>DISEASE/CONDITION</b>                                  | <b>CLASS</b> | <b>EVALUATION DATA</b>  | <b>DISPOSITION</b>    |
|---|--------------|---|-----------------------|
| <b>Malignant Melanoma</b>                                 |              |   |                       |
| Melanoma of Unknown Primary Origin                        | All          | Submit all pertinent medical records, operative/ pathology reports, and current oncological status report, current MRI of the brain; PET scan if no primary | Requires FAA Decision |
| Neurofibromatosis with Central Nervous System Involvement | All          | Submit all pertinent medical information and current status medical report  | Requires FAA Decision |
| <b>Urticarial Eruptions</b>                               |              |   |                       |
| Angioneurotic Edema                                       | All          | Submit all pertinent medical records and a current status report to include treatment   | Requires FAA Decision |
| Chronic Urticaria   | All          | Submit all records and a current status report to include treatment   | Requires FAA Decision |

**ITEM 41. G-U SYSTEM**

| CHECK EACH ITEM IN APPROPRIATE COLUMN             | NORMAL | ABNORMAL |
|---|--------|----------|
| 41. G-U system (Not including pelvic examination) |        |          |

**NOTE:** The pelvic examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a pelvic examination is performed, the results are to be recorded in Item 60 of FAA Form 8500-8.

**I. Code of Federal Regulations****All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)**

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

**II. Examination Techniques**

The Examiner should observe for discharge, inflammation, skin lesions, scars, strictures, tumors, and secondary sexual characteristics. Palpation for masses and areas of tenderness should be performed. The pelvic examination is performed only at the applicant's option or if indicated by specific history or physical findings. If a pelvic examination is performed, the results are to be recorded in Item 60 of FAA Form 8500-8. Disorders such as sterility and menstrual irregularity are not usually of importance in qualification for medical certification. Specialty evaluations may be indicated by history or by physical findings on the routine examination. A personal history of urinary symptoms is important; such as:

1. Pain or burning upon urination
2. Dribbling or Incontinence
3. Polyuria, frequency, or nocturia
4. Hematuria, pyuria, or glycosuria

Special procedures for evaluation of the G-U system should best be left to the discretion of an urologist, nephrologist, or gynecologist.

### III. Aerospace Medical Disposition

(See Item 48, page 122, for details concerning diabetes and Item 57, page 147, for other information related to the examination of urine).

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

| DISEASE/CONDITION                | CLASS | EVALUATION DATA  | DISPOSITION  |
|----------------------------------|-------|--|--|
| <b>General Disorders</b>         |       |  |  |
| Congenital lesions of the kidney | All   | Submit all pertinent medical information and status report | <p>If the applicant has an ectopic, horseshoe kidney, unilateral agenesis, hypoplastic, or dysplastic and is asymptomatic<br/>– Issue</p> <p>Otherwise – Requires FAA Decision</p> |

| DISEASE/CONDITION                 | CLASS | EVALUATION DATA  | DISPOSITION   |
|-----------------------------------|-------|--|---|
| <b>General Disorders</b>          |       |  |   |
| Cystostomy and Neurogenic bladder | All   | Requires evaluation, report must include etiology, clinical manifestation and treatment plan   | Requires FAA Decision   |
| Renal Dialysis                    | All   | Submit a current status report, all pertinent medical reports to include etiology, clinical manifestation, BUN, Ca, PO <sup>4</sup> , Creatinine, electrolytes, and treatment plan | Requires FAA Decision   |
| Renal Transplant                  | All   | See Renal Transplant Protocol  | Requires FAA Decision   |
| <b>Inflammatory Conditions</b>    |       |  |   |
| Acute (Nephritis)                 | All   | Submit all pertinent medical information and status report   | If > 3 mos. ago, resolved, no sequela, or indication of reoccurrence - Issue<br><br>Otherwise - Requires FAA Decision |
| Chronic (Nephritis)               | All   | Submit all pertinent medical information and status report   | Requires FAA Decision   |
| Nephrosis                         | All   | Submit all pertinent medical information and status report   | Requires FAA Decision   |

| DISEASE/CONDITION           | CLASS | EVALUATION DATA  | DISPOSITION   |
|-----------------------------|-------|--|---|
| <b>Neoplastic Disorders</b> |       |  |   |
| Bladder                     | All   | Submit a current status report, all pertinent medical reports to include staging, metastatic work up, and operative report if applicable                     | Requires FAA Decision   |
| Other Neoplastic Disorders  | All   | Submit a current status report, all pertinent medical reports to include staging, metastatic work up, and operative report if applicable                     | Requires FAA Decision   |
| Prostatic Carcinoma         | All   | Submit a current status report, all pertinent medical reports to include staging, PSA, metastatic workup, and operative report, if applicable, and treatment | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |
| Renal                       | All   | Submit a current status report, all pertinent medical reports, include staging, metastatic workup, & operative report if applicable                          | Requires FAA Decision   |



| <b>DISEASE/CONDITION</b>                    | <b>CLASS</b> | <b>EVALUATION DATA</b>                                     | <b>DISPOSITION</b>   |
|---|--------------|--|--|
| <b>Nephritis</b>                            |              |  |  |
| Polycystic Kidney Disease                   | All          | Submit all pertinent medical information and status report | If renal function is normal and no hypertension - Issue<br><br>Otherwise - Requires FAA Decision   |
| Pyelitis or Pyelonephritis                  | All          | Submit all pertinent medical information and status report | If asymptomatic - Issue<br>Otherwise - Requires FAA Decision   |
| Pyonephrosis                                | All          | Submit all pertinent medical information and status report | Requires FAA Decision  |
| <b>Urinary System</b>                       |              |  |  |
| Hydronephrosis with impaired renal function | All          | Submit all pertinent medical information and status report | Requires FAA Decision  |
| Nephrectomy (non-neoplastic)                | All          | Submit all pertinent medical information and status report | If the remaining kidney function and anatomy is normal, without other systemic disease, hypertension, uremia, infection of the remaining kidney - Issue<br>Otherwise - Requires FAA Decision |
| Nephrocalcinosis                            | All          | Submit all pertinent medical information and status report | If calculus is not in collecting system or renal pelvis - Issue<br><br>Otherwise - Requires FAA Decision   |

| DISEASE/CONDITION                                    | CLASS | EVALUATION DATA   | DISPOSITION  |
|--|-------|---|--|
| <b>Urinary System</b>                                |       |   |  |
| Calculus <sup>11</sup><br><br>Renal - Single episode | All   | Submit current metabolic evaluation and status report   | If there is no residual calculi and the metabolic workup is negative<br>- Issue<br><br>Otherwise - Requires FAA Decision     |
| Renal - Multiple episodes or Retained Stones         | All   | Submit current metabolic evaluation and status report   | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol        |
| Ureteral or Vesical                                  | All   | Single episode and no retained calculi, submit current metabolic evaluation and status report (Ureteral stent is acceptable if functioning without sequela) | If metabolic workup is negative and there is no sequela or retained calculi - Issue<br><br>Otherwise - Requires FAA Decision |

A history of recent or significant hematuria requires further evaluation.

## GENITAL/REPRODUCTIVE SYSTEM

*Pregnancy* under normal circumstances is not disqualifying. It is recommended that the applicant's obstetrician be made aware of all aviation activities so that the obstetrician can properly advise the applicant. The Examiner may wish to counsel applicants concerning piloting aircraft during the third trimester. The proper use of lap belt and shoulder harness warrants discussion.

<sup>11</sup> Complete studies to determine the possible etiology and prognosis are essential to favorable FAA consideration. Determining factors include site and location of the stones, complications such as compromise in renal function, repeated bouts of kidney infection, and need for therapy. Any underlying disease will be considered. The likelihood of sudden incapacitating symptoms is of primary concern. Report of imaging studies (KUB, IVP, or spiral CT) must be submitted in order to conclude that there are no residual or retained calculi.

*Use of Oral or Repository Contraceptives or Hormonal Replacement Therapy* are not disqualifying for medical certification. If the applicant is experiencing no adverse symptoms or reactions to cyclic hormones and is otherwise qualified, the Examiner may issue the desired certificate.

Gender dysphoria and gender reassignment are not disqualifying, however, a complete review of the medical history and records is indicated to determine that there is no medical, psychiatric, or psychological condition that is considered disqualifying. Medical disqualification is considered appropriate during the time of hormonal manipulation until such time where there is a stabilization of the dose administered and the physiologic response. Defer and submit a current status report and all pertinent medical reports to AMCD or RFS.

## ITEMS 42-43. MUSCULOSKELETAL

| CHECK EACH ITEM IN APPROPRIATE COLUMN                          | NORMAL | ABNORMAL |
|--|--------|----------|
| 42. Upper and lower extremities (Strength and range of motion) |        |          |
| 43. Spine, other musculoskeletal                               |        |          |

### I. Code of Federal Regulations

#### All Classes: 14 CFR 67.113 (b)(c), 67.213 (b)(c), and 67.313 (b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved finds -

- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

## **II. Examination Techniques**

Standard examination procedures should be used to make a gross evaluation of the integrity of the applicant's musculoskeletal system. The Examiner should note:

1. Pain - neuralgia, myalgia, paresthesia, and related circulatory and neurological findings
2. Weakness - local or generalized; degree and amount of functional loss
3. Paralysis - atrophy, contractures, and related dysfunctions
4. Motion coordination, tremors, loss or restriction of joint motions, and performance degradation
5. Deformity - extent and cause
6. Amputation - level, stump healing, and phantom pain
7. Prostheses - comfort and ability to use effectively

## **III. Aerospace Medical Disposition**

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

**ITEM 42. UPPER AND LOWER EXTREMITIES**

| <b>DISEASE/CONDITION</b>   | <b>CLASS</b> | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>   |
|--|--------------|--|--|
| <b>Upper and Lower Extremities</b>   |              |  |  |
| Amputations  | All          | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | <p>If applicant has a SODA issued on the basis of the amputation - Issue</p> <p>Otherwise - Requires FAA Decision</p> <p>After review of all medical data, the FAA may authorize a special medical flight test</p> |
| Atrophy of any muscles that is progressive,<br>Deformities, either congenital or acquired, or<br>Limitation of motion of a major joint, that are sufficient to interfere with the performance of airman duties | All          | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medication with side effects, and all pertinent medical reports | Requires FAA Decision  |

| DISEASE/CONDITION  | CLASS | EVALUATION DATA  | DISPOSITION           |
|--|-------|--|-----------------------|
| <b>Upper and Lower Extremities</b>   |       |  |                       |
| Neuralgia or Neuropathy, chronic or acute, particularly sciatica, if sufficient to interfere with function or is likely to become incapacitating | All   | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | Requires FAA Decision |
| Osteomyelitis, acute or chronic, with or without draining fistula(e)   | All   | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | Requires FAA Decision |
| Tremors, if sufficient to interfere with the performance of airman duties <sup>12</sup>  | All   | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | Requires FAA Decision |

<sup>12</sup> Essential tremor is not disqualifying unless it is disabling.

For all the above conditions: If the applicant is otherwise qualified, the FAA may issue a limited certificate. This certificate will permit the applicant to proceed with flight training until ready for a MFT. At that time, at the applicant's request, the FAA (usually the AMCD) will authorize the student pilot to take a MFT in conjunction with the regular flight test. The MFT and regular private pilot flight test are conducted by an FAA inspector. This affords the student an opportunity to demonstrate the ability to control the aircraft despite the handicap. The FAA inspector prepares a written report and indicates whether there is a safety problem. A medical certificate and SODA, without the student limitation, may be provided to the inspector for issuance to the applicant, or the inspector may be required to send the report to the FAA medical officer who authorized the test.

When prostheses are used or additional control devices are installed in an aircraft to assist the amputee, those found qualified by special certification procedures will have their certificates limited to require that the devices (and, if necessary, even the specific aircraft) must always be used when exercising the privileges of the airman certificate.

#### Item 43. SPINE, OTHER MUSCULOSKELETAL

| DISEASE/CONDITION            | CLASS | EVALUATION DATA  | DISPOSITION  |
|------------------------------|-------|--|--|
| <b>Arthritis</b>             |       |  |  |
| Osteoarthritis <sup>13</sup> | All   | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | If mild and controlled with small doses of nonprescription agents - Issue<br><br>If symptomatic or requires medication - Requires FAA Decision |

<sup>13</sup> Arthritis (if it is symptomatic or requires medication, other than small doses of nonprescription anti-inflammatory agents), is disqualifying unless the applicant holds a letter from the FAA specifically authorizing the Examiner to issue the certificate when the applicant is found otherwise qualified. Although the use of many medications on a continuing basis ordinarily contraindicates the performance of pilot duties, under certain circumstances, certification is possible for an applicant who is taking aspirin, ibuprofen, naproxen, similar nonsteroidal anti-inflammatory drugs (NSAID), or COX-2 inhibitors. If the applicant presents evidence documenting that the underlying condition for which the medicine is being taken is not in itself disabling and the applicant has been on therapy (NSAID) long enough to have established that the medication is well tolerated and has not produced adverse side effects, the Examiner may issue a certificate.

| DISEASE/CONDITION   | CLASS | EVALUATION DATA  | DISPOSITION   |
|---|-------|--|---|
| <b>Arthritis</b>  |       |  |   |
| Rheumatoid Arthritis and Variants   | All   | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |
| <b>Collagen Disease</b>   |       |  |   |
| Acute Polymyositis; Dermatomyositis; Lupus Erythematosus; or Periarteritis Nodosa | All   | Submit a current status report to include functional status, frequency and severity of episodes, organ systems effected, medications with side effects and all pertinent medical reports           | Requires FAA Decision   |



| <b>DISEASE/CONDITION</b>   | <b>CLASS</b> | <b>EVALUATION DATA</b>   | <b>DISPOSITION</b>    |
|--|--------------|--|-----------------------|
| <b>Spine, other musculoskeletal</b>  |              |  |                       |
| Active disease of bones and joints   | All          | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | Requires FAA Decision |
| Ankylosis, curvature, or other marked deformity of the spinal column sufficient to interfere with the performance of airman duties | All          | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | Requires FAA Decision |

| DISEASE/CONDITION  | CLASS | EVALUATION DATA  | DISPOSITION                      |
|--|-------|--|----------------------------------|
| <b>Spine, other musculoskeletal</b>  |       |  |                                  |
| Intervertebral Disc Surgery  | All   | <b>See Footnote<sup>14</sup></b>   | <b>See Footnote<sup>14</sup></b> |
| Musculoskeletal effects of:<br><br>Cerebral Palsy,<br>Muscular Dystrophy<br><br>Myasthenia Gravis, or<br>Myopathies  | All   | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | Requires FAA Decision            |
| Other disturbances of musculoskeletal function, acquired or congenital, sufficient to interfere with the performance of airman duties or likely to progress to that degree | All   | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | Requires FAA Decision            |

<sup>14</sup>A history of intervertebral disc surgery is not disqualifying. If the applicant is asymptomatic, has completely recovered from surgery, is taking no medication, and has suffered no neurological deficit, the Examiner should confirm these facts in a brief statement in Item 60. The Examiner may then issue any class of medical certificate, providing that the individual meets all the medical standards for that class.

The paraplegic whose paralysis is not the result of a progressive disease process is considered in much the same manner as an amputee. The Examiner should defer issuance and may advise the applicant to request further FAA consideration. The applicant may be authorized to take a MFT along with the private pilot certificate flight test. If successful, the limitation VALID FOR STUDENT PILOT PURPOSES ONLY is removed from the medical certificate, but operational limitations may be added. A statement of demonstrated ability is issued.

Other neuromuscular conditions are covered in more detail in Item 46, page 101.

| DISEASE/CONDITION                             | CLASS | EVALUATION DATA  | DISPOSITION           |
|---|-------|--|-----------------------|
| <b>Spine, other musculoskeletal</b>           |       |  |                       |
| Symptomatic herniation of intervertebral disc | All   | Submit a current status report to include functional status (degree of impairment as measured by strength, range of motion, pain), medications with side effects and all pertinent medical reports | Requires FAA Decision |

#### ITEM 44. IDENTIFYING BODY MARKS, SCARS, TATTOOS

| CHECK EACH ITEM IN APPROPRIATE COLUMN                          | NORMAL | ABNORMAL |
|--|--------|----------|
| 44. Identifying body marks, scars, tattoos (Size and location) |        |          |

#### I. Code of Federal Regulations

##### All Classes: 14 CFR 67.113(b), 67.213(b), and 67.313(b)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition finds-

- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges

#### II. Examination Techniques

A careful examination for surgical and other scars should be made, and those that are significant (the result of surgery or that could be useful as identifying marks) should be described. Tattoos should be recorded because they may be useful for identification.

### III. Aerospace Medical Disposition

The Examiner should question the applicant about any surgical scars that have not been previously addressed, and document the findings in Item 60 of FAA Form 8500-8. Medical certificates must not be issued to applicants with medical conditions that require deferral without consulting the AMCD or RFS. Medical documentation must be submitted for any condition in order to support an issuance of a medical certificate.

Disqualifying Condition: Scar tissue that involves the loss of function, which may interfere with the safe performance of airman duties.

#### ITEM 45. LYMPHATICS

| CHECK EACH ITEM IN APPROPRIATE COLUMN | NORMAL | ABNORMAL |
|---------------------------------------|--------|----------|
| 45. Lymphatics                        |        |          |

#### I. Code of Federal Regulations

##### All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

## II. Examination Techniques

A careful examination of the lymphatic system may reveal underlying systemic disorders of clinical importance. Further history should be obtained as needed to explain findings.

## III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

| DISEASE/CONDITION                       | CLASS | EVALUATION DATA  | DISPOSITION   |
|---|-------|--|---|
| <b>Hodgkin's Disease – Lymphoma</b>     |       |  |   |
| Hodgkin's Disease - Lymphoma            | All   | Submit a current status report and all pertinent medical reports. Include past and present treatment(s). | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |
| <b>Leukemia, Acute and Chronic</b>      |       |  |   |
| Leukemia, Acute and Chronic – All Types | All   | Submit a current status report and all pertinent medical reports   | Requires FAA Decision   |
| Chronic Lymphocytic Leukemia            | All   | Submit a current status report and all pertinent medical reports   | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |

| DISEASE/CONDITION                                      | CLASS | EVALUATION DATA   | DISPOSITION           |
|--|-------|---|-----------------------|
| <b>Lymphatics</b>                                      |       |   |                       |
| Adenopathy secondary to Systemic Disease or Metastasis | All   | Submit a current status report and all pertinent medical reports  | Requires FAA Decision |
| Lymphedema   | All   | Submit a current status report and all pertinent medical reports. Note if there are any motion restrictions of the involved extremity | Requires FAA Decision |
| Lymphosarcoma  | All   | Submit a current status report and all pertinent medical reports. Include past and present treatment(s).                              | Requires FAA Decision |

#### ITEM 46. NEUROLOGIC

| CHECK EACH ITEM IN APPROPRIATE COLUMN | NORMAL | ABNORMAL |
|---------------------------------------|--------|----------|
| 46. NEUROLOGIC                        |        |          |

#### I. Code of Federal Regulations

**All Classes: 14 CFR 67.109 (a)(b), 67.209 (a)(b), and 67.309 (a)(b)**

(a) No established medical history or clinical diagnosis of any of the following:

(1) Epilepsy

(2) A disturbance of consciousness without satisfactory medical explanation of the cause; or

(3) A transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause;

(b) No other seizure disorder, disturbance of consciousness, or neurologic condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

## **II. Examination Techniques**

A neurologic evaluation should consist of a thorough review of the applicant's history prior to the neurological examination. The Examiner should specifically inquire concerning a history of weakness or paralysis, disturbance of sensation, loss of coordination, or loss of bowel or bladder control. Certain laboratory studies, such as scans and imaging procedures of the head or spine, electroencephalograms, or spinal paracentesis may suggest significant medical history. The Examiner should note conditions identified in Item 60 on the application with facts, such as dates, frequency, and severity of occurrence.

A history of simple headaches without sequela is not disqualifying. Some require only temporary disqualification during periods when the headaches are likely to occur or require treatment. Other types of headaches may preclude certification by the Examiner and require special evaluation and consideration (e.g., migraine and cluster headaches).

One or two episodes of dizziness or even fainting may not be disqualifying. For example, dizziness upon suddenly arising when ill is not a true dysfunction. Likewise, the orthostatic faint associated with moderate anemia is no threat to aviation safety as long as the individual is temporarily disqualified until the anemia is corrected.

An unexplained disturbance of consciousness is disqualifying under the medical standards. Because a disturbance of consciousness may be expected to be totally incapacitating, individuals with such histories pose a high risk to safety and must be denied or deferred by the Examiner. If the cause of the disturbance is explained and a loss of consciousness is not likely to recur, then medical certification may be possible.

The basic neurological examination consists of an examination of the 12 cranial nerves, motor strength, superficial reflexes, deep tendon reflexes, sensation, coordination, mental status, and includes the Babinski reflex and Romberg sign. The Examiner should be aware of any asymmetry in responses because this may be evidence of mild or early abnormalities. The Examiner should evaluate the visual field by direct confrontation or, preferably, by one of the perimetry procedures, especially if there is a suggestion of neurological deficiency.

**III. Aerospace Medical Disposition**

A history or the presence of any neurological condition or disease that potentially may incapacitate an individual should be regarded as initially disqualifying. Issuance of a medical certificate to an applicant in such cases should be denied or defer, pending further evaluation. A convalescence period following illness or injury may be advisable to permit adequate stabilization of an individual's condition and to reduce the risk of an adverse event. Applications from individuals with potentially disqualifying conditions should be forwarded to the AMCD. Processing such applications can be expedited by including hospital records, consultation reports, and appropriate laboratory and imaging studies, if available. Symptoms or disturbances that are secondary to the underlying condition and that may be acutely incapacitating include pain, weakness, vertigo or in coordination, seizures or a disturbance of consciousness, visual disturbance, or mental confusion. Chronic conditions may be incompatible with safety in aircraft operation because of long-term unpredictability, severe neurologic deficit, or psychological impairment.

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.



| DISEASE/CONDITION  | CLASS | EVALUATION DATA  | DISPOSITION           |
|--|-------|--|-----------------------|
| <b>Cerebrovascular Disease</b> (including the brain stem) <sup>15</sup>                                      |       |  |                       |
| Cerebral Thrombosis;<br><br>Intracerebral or Subarachnoid Hemorrhage<br><br>Transient Ischemic Attack (TIA); | All   | Submit all pertinent medical records, current neurologic report, to include CHD Protocol, Brain MRI, Bilat Carotid US, name and dosage of medication(s) and side effects | Requires FAA Decision |
| Intracranial Aneurysm or Arteriovenous Malformation  | All   | Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side effects   | Requires FAA Decision |

<sup>15</sup> Complete neurological evaluations supplemented with appropriate laboratory and imaging studies are required of applicants with the above conditions. Cerebral arteriography may be necessary for review in cases of subarachnoid hemorrhage.

| DISEASE/CONDITION   | CLASS | EVALUATION DATA  | DISPOSITION           |
|---|-------|--|-----------------------|
| <b>Cerebrovascular Disease</b> (including the brain stem) |       |  |                       |
| Intracranial Tumor <sup>16</sup>                          | All   | Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side effects | Requires FAA Decision |
| Pseudotumor Cerebri (benign intracranial hypertension)    | All   | Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side effects | Requires FAA Decision |

<sup>16</sup> A variety of intracranial tumors, both malignant and benign, are capable of causing incapacitation directly by neurologic deficit or indirectly through recurrent symptomatology. Potential neurologic deficits include weakness, loss of sensation, ataxia, visual deficit, or mental impairment. Recurrent symptomatology may interfere with flight performance through mechanisms such as seizure, headaches, vertigo, visual disturbances, or confusion. A history or diagnosis of an intracranial tumor necessitates a complete neurological evaluation with appropriate laboratory and imaging studies before a determination of eligibility for medical certification can be established. An applicant with a history of benign supratentorial tumors may be considered favorably for medical certification by the FAA and returned to flying status after a minimum satisfactory convalescence of 1 year.

| DISEASE/CONDITION  | CLASS | EVALUATION DATA  | DISPOSITION           |
|--|-------|--|-----------------------|
| <b>Demyelinating Disease<sup>17</sup></b>  |       |  |                       |
| Acute Optic Neuritis;<br><br>Allergic<br>Encephalomyelitis;<br><br>Landry-Guillain-Barre<br>Syndrome;<br><br>Myasthenia Gravis; or<br><br>Multiple Sclerosis | All   | Submit all pertinent<br>medical records,<br>current neurologic<br>report, to comment<br>on involvement and<br>persisting deficit,<br>period of stability<br>without symptoms,<br>name and dosage of<br>medication(s) and<br>side effects | Requires FAA Decision |

<sup>17</sup>Factors used in determining eligibility will include the medical history, neurological involvement and persisting deficit, period of stability without symptoms, type and dosage of medications used, and general health. A neurological and/or general medical consultation will be necessary in most instances.

| DISEASE/CONDITION   | CLASS | EVALUATION DATA   | DISPOSITION           |
|---|-------|---|-----------------------|
| <b>Extrapyramidal, Hereditary, and Degenerative Diseases of the Nervous System<sup>18</sup></b>   |       |   |                       |
| Dystonia Musculorum Deformans;<br>Huntington's Disease;<br>Parkinson's Disease;<br><br>Wilson's Disease; or<br><br>Gilles de la Tourette Syndrome;<br><br>Alzheimer's Disease;<br>Dementia (unspecified);<br>or<br><br>Slow viral diseases<br>i.e., Creutzfeldt-Jakob's Disease | All   | Obtain medical records and current neurological status, complete neurological evaluation with appropriate laboratory and imaging studies, as indicated<br><br>May consider Neuropsychological testing | Requires FAA Decision |

<sup>18</sup> Extrapyramidal, Hereditary, and Degenerative Diseases of the Nervous System: Considerable variability exists in the severity of involvement, rate of progression, and treatment of the above conditions. A complete neurological evaluation with appropriate laboratory and imaging studies, including information regarding the specific neurological condition, will be necessary for determination of eligibility for medical certification.

| DISEASE/CONDITION                    | CLASS | EVALUATION DATA   | DISPOSITION           |
|--------------------------------------|-------|---|-----------------------|
| <b>Headaches<sup>19</sup></b>        |       |   |                       |
| Atypical Facial Pain                 | All   | Submit all pertinent medical records, current neurologic report, to include name and dosage of medication(s) and side effects   | Requires FAA Decision |
| Chronic Tension or Cluster Headaches | All   | Submit all pertinent medical records, current neurologic report, to include characteristics, frequency, severity, associated with neurologic phenomena, name and dosage of medication(s) and side effects | Requires FAA Decision |

<sup>19</sup> Pain, in some conditions, may be acutely incapacitating. Chronic recurring headaches or pain syndromes often require medication for relief or prophylaxis, and, in most instances, the use of such medications are disqualifying because they may interfere with a pilot's alertness and functioning. The Examiner may issue a medical certificate to an applicant with a long-standing history of headaches if mild, seldom requiring more than simple analgesics, occur infrequently, are not incapacitating, and are not associated with neurological stigmata.

| <b>DISEASE/CONDITION</b>  | <b>CLASS</b> | <b>EVALUATION DATA</b>  | <b>DISPOSITION</b>  |
|---|--------------|---|---|
| Migraines   | All          | Submit all pertinent medical records, current neurologic report, to include characteristics, frequency, severity, associated with neurologic phenomena, and name and dosage of medication(s) and side effects | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |
| Post-traumatic Headache   | All          | Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side effects  | Requires FAA Decision   |
| <b>Hydrocephalus and Shunts</b>   |              |   |   |
| Hydrocephalus, secondary to a known injury or disease process; or normal pressure | All          | Submit all pertinent medical records, current neurologic report, to include name and dosage of medication(s) and side effects   | Requires FAA Decision   |
| <b>Infections of the Nervous System</b>   |              |   |   |
| Brain Abscess;<br><br>Encephalitis;<br><br>Meningitis; and<br><br>Neurosyphilis   | All          | Complete neurological evaluation with appropriate laboratory and imaging studies  | Requires FAA Decision   |

| DISEASE/CONDITION  | CLASS | EVALUATION DATA   | DISPOSITION   |
|--|-------|---|---|
| <b>Neurologic Conditions</b>   |       |   |   |
| A disturbance of consciousness without satisfactory medical explanation of the cause   | All   | Submit all pertinent medical records, current neurologic report, to include name and dosage of medication(s) and side effects | Requires FAA Decision   |
| Epilepsy <sup>20</sup>   | All   | Submit all pertinent medical records, current status report, to include name and dosage of medication(s) and side effects     | Requires FAA Decision   |
| Febrile Seizure <sup>21</sup><br>(Single episode)  | All   | Submit all pertinent medical records and a current status report  | If occurred prior to age 5, without recurrence and off medications for 3 years - Issue<br><br>Otherwise – Requires FAA Decision |
| Transient loss of nervous system function(s) without satisfactory medical explanation of the cause; e.g., transient global amnesia | All   | Submit all pertinent medical records, current status report, to include name and dosage of medication(s) and side effects     | Requires FAA Decision   |

<sup>20</sup> Unexplained syncope, single seizure. An applicant who has a history of epilepsy, a disturbance of consciousness without satisfactory medical explanation of the cause, or a transient loss of control of nervous system function(s) without satisfactory medical explanation of the cause must be denied or deferred by the Examiner.

<sup>21</sup> Infrequently, the FAA has granted an Authorization under the special issuance section of part 67 (14 CFR 67.401) when a seizure disorder was present in childhood but the individual has been seizure-free for a number of years. Factors that would be considered in determining eligibility in such cases would be age at onset, nature and frequency of seizures, precipitating causes, and duration of stability without medication. Followup evaluations are usually necessary to confirm continued stability of an individual's condition if an Authorization is granted under the special issuance section of part 67 (14 CFR 67.401).

| DISEASE/CONDITION   | CLASS | EVALUATION DATA   | DISPOSITION           |
|---|-------|---|-----------------------|
| <b>Other Conditions</b>   |       |   |                       |
| Trigeminal Neuralgia  | All   | Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side effects  | Requires FAA Decision |
| <b>Presence of any neurological condition or disease that potentially may incapacitate an individual</b>  |       |   |                       |
| Head Trauma associated with:<br><br>Epidural or Subdural Hematoma;<br><br>Focal Neurologic Deficit;<br><br>Depressed Skull Fracture; or<br><br>Unconsciousness or disorientation of more than 1 hour following injury | All   | Submit all pertinent medical records, current status report, to include pre-hospital and emergency department records, operative reports, neurosurgical evaluation, name and dosage of medication(s) and side effects | Requires FAA Decision |



| DISEASE/CONDITION   | CLASS | EVALUATION DATA  | DISPOSITION           |
|---|-------|--|-----------------------|
| <b>Spasticity, Weakness, or Paralysis of the Extremities</b>  |       |  |                       |
| Conditions that are stable and non-progressive may be considered for medical certification  | All   | Submit all pertinent medical records, current neurologic report, to include etiology, degree of involvement, period of stability, appropriate laboratory and imaging studies | Requires FAA Decision |
| <b>Vertigo or Disequilibrium<sup>22</sup></b>   |       |  |                       |
| Alternobaric Vertigo;<br>Hyperventilation Syndrome;<br>Meniere's Disease and Acute Peripheral Vestibulopathy;<br>Nonfunctioning Labyrinths; or<br>Orthostatic Hypotension | All   | Submit all pertinent medical records, current neurologic report, name and dosage of medication(s) and side effects   | Requires FAA Decision |

<sup>22</sup> Numerous conditions may affect equilibrium, resulting in acute incapacitation or varying degrees of chronic recurring spatial disorientation. Prophylactic use of medications also may cause recurring spatial disorientation and affect pilot performance. In most instances, further neurological evaluation will be required to determine eligibility for medical certification.

## ITEM 47. PSYCHIATRIC

| CHECK EACH ITEM IN APPROPRIATE COLUMN                                   | NORMAL | ABNORMAL |
|---|--------|----------|
| 47. Psychiatric (Appearance, behavior, mood, communication, and memory) |        |          |

### I. Code of Federal Regulations

#### All Classes: 14 CFR 67.107(a)(b)(c), 67.207(a)(b)(c), and 67.307(a)(b)(c)

(a) No established medical history or clinical diagnosis of any of the following:

(1) A personality disorder that is severe enough to have repeatedly manifested itself by overt acts.

(2) A psychosis. As used in this section, "psychosis" refers to a mental disorder in which:

(i) The individual has manifested delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition; or

(ii) The individual may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition.

(3) A bipolar disorder.

(4) Substance dependence, except where there is established clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance(s) for not less than the preceding 2 years. As used in this section-

(i) "Substance" includes: alcohol; other sedatives and hypnotics; anxiolytics; opioids; central nervous system stimulants such as cocaine, amphetamines, and similarly acting sympathomimetics; hallucinogens; phencyclidine or similarly acting arylcyclohexylamines; cannabis; inhalants; and other psychoactive drugs and chemicals; and

(ii) "Substance dependence" means a condition in which a person is dependent on a substance, other than tobacco or ordinary xanthine-containing (e.g., caffeine) beverages, as evidenced by-

- (A) Increased tolerance
- (B) Manifestation of withdrawal symptoms;
- (C) Impaired control of use; or
- (D) Continued use despite damage to physical health or impairment of social, personal, or occupational functioning.

(b) No substance abuse within the preceding 2 years defined as:

- (1) Use of a substance in a situation in which that use was physically hazardous, if there has been at any other time an instance of the use of a substance also in a situation in which that use was physically hazardous;
- (2) A verified positive drug test result acquired under an anti-drug program or internal program of the U.S. Department of Transportation or any other Administration within the U.S. Department of Transportation; or
- (3) Misuse of a substance that the Federal Air Surgeon, based on case history and appropriate, qualified medical judgment relating to the substance involved, finds-
  - (i) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
  - (ii) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No other personality disorder, neurosis, or other mental condition that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

- (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
- (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(Also see Items 18.m., n., and p., page 32).

## **II. Examination Techniques**

The FAA does not expect the Examiner to perform a formal psychiatric examination.

However, the Examiner should form a general impression of the emotional stability and mental state of the applicant. There is a need for discretion in the Examiner/applicant relationship consonant with the FAA's aviation safety mission and the concerns of all applicants regarding disclosure to a public agency of sensitive information that may not be pertinent to aviation safety. Examiners must be sensitive to this need while, at the same time, collect what is necessary for a certification decision. When a question arises, the Federal Air Surgeon encourages Examiners first to check this *Guide for Aviation Medical Examiners* and other FAA informational documents. If the question remains unresolved, the Examiner should seek advice from a RFS or the Manager of the AMCD.

Review of the applicant's history as provided on the application form may alert the Examiner to gather further important factual information. Information about the applicant may be found in items related to age, pilot time, and class of certificate for which applied. Information about the present occupation and employer also may be helpful. If any psychotropic drugs are or have been used, followup questions are appropriate. Previous medical denials or aircraft accidents may be related to psychiatric problems.

Psychiatric information can be derived from the individual items in medical history (Item 18; page 32). Any affirmative answers to Item 18.m., "Mental disorders of any sort; depression, anxiety, etc.," or Item 18.p., "Suicide attempt," are significant. Any disclosure of current or previous alcohol or drug problems requires further clarification. A record of traffic violations may reflect certain personality problems or indicate an alcohol problem. Affirmative answers related to rejection by military service or a military medical discharge require elaboration. Reporting symptoms such as headaches or dizziness, or even heart or stomach trouble, may reflect a history of anxiety rather than a primary medical problem in these areas. Sometimes, the information applicants give about their previous diagnoses is incorrect, either because the applicant is unsure of the correct information or because the applicant chooses to minimize past difficulties. If there was a hospital admission for any emotionally related problem, it will be necessary to obtain the entire record.

Valuable information can be derived from the casual conversation that occurs during the physical examination. Some of this conversation will reveal information about the family, the job, and special interests. Even some personal troubles may be revealed at this time. The Examiner's questions should not be stilted or follow a regular pattern; instead, they should be a natural extension of the Examiner's curiosity about the person being examined. Information about the motivation for medical certification and interest in flying may be revealing. A formal Mental Status Examination is unnecessary. For example, it is not necessary to ask about time, place, or person to discover whether the applicant is oriented. Information about the flow of associations, mood, and memory, is generally available from the usual interactions during the examination. Indication of cognitive problems may become apparent during the examination. Such problems with concentration, attention, or confusion during the examination or slower, vague responses should be noted and may be cause for deferral.

The Examiner should make observations about the following specific elements and should note on the form any gross or notable deviations from normal:

1. Appearance (abnormal if dirty, disheveled, odoriferous, or unkempt);
2. Behavior (abnormal if uncooperative, bizarre, or inexplicable);
3. Mood (abnormal if excessively angry, sad, euphoric, or labile);
4. Communication (abnormal if incomprehensible, does not answer questions directly);
5. Memory (abnormal if unable to recall recent events); and
6. Cognition (abnormal if unable to engage in abstract thought, or if delusional or hallucinating).

The Examiner, upon identifying any significant problems, should defer issuance of the medical certificate and report findings to the FAA. This could be accomplished by contacting a RFS or the Manager of the AMCD.

### **III. Aerospace Medical Disposition**

A. General Considerations. It must be pointed out that considerations for safety, which in the "mental" area are related to a compromise of judgment and emotional control or to diminished mental capacity with loss of behavioral control, are not the same as concerns for emotional health in everyday life. Some problems may have only a slight impact on an individual's overall capacities and the quality of life but may nevertheless have a great impact on safety. Conversely, many emotional problems that are of therapeutic and clinical concern have no impact on safety.

B. Denials. The FAA has concluded that certain psychiatric conditions are such that their presence or a past history of their presence is sufficient to suggest a significant potential threat to safety. It is, therefore, incumbent upon the Examiner to be aware of any indications of these conditions currently, or in the past, and to deny or defer issuance of the medical certificate to an applicant who has a history of these conditions. An applicant who has a current diagnosis or history of these conditions (listed below) may request the FAA to grant an Authorization under the special issuance section of part 67 (14 CFR 67.401) and, based upon individual considerations, the FAA may grant such an issuance.

**NOTE:** The use of a psychotropic drug is disqualifying for aeromedical certification purposes. This includes all sedatives, tranquilizers, antipsychotic drugs, antidepressant drugs (including SSRI's), analeptics, anxiolytics, and hallucinogens. The Examiner should defer issuance and forward the medical records to the AMCD.

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

| DISEASE/CONDITION             | CLASS | EVALUATION DATA   | DISPOSTION  |
|-------------------------------|-------|---|---|
| <b>Psychiatric Conditions</b> |       |   |   |
| Adjustment Disorders          | All   | Submit all pertinent medical information and clinical status report   | <p>If stable, resolved, no associated disturbance of thought, no recurrent episodes, and psychotropic medication(s) used for less than 6 months and discontinued for at least 3 months - Issue</p> <p>Otherwise - Requires FAA Decision</p> |
| Attention Deficit Disorder    | All   | Submit all pertinent medical information and clinical status report to include documenting the period of use, name and dosage of any medication(s) and side-effects | Requires FAA Decision   |

| DISEASE/CONDITION  | CLASS | EVALUATION DATA   | DISPOSITION  |
|--|-------|---|--|
| <b>Psychiatric Conditions</b>                            |       |   |  |
| Bipolar Disorder   | All   | See III. B-3 below  | Requires FAA Decision  |
| Bereavement;<br><br>Dysthmic; or<br><br>Minor Depression | All   | Submit all pertinent medical information and clinical status report       | If stable, resolved, no associated disturbance of thought, no recurrent episodes, and;<br>a). psychotropic medication(s) used for less than 6 months and discontinued for at least 3 months – Issue<br>b). No use of psychotropic medication(s) - Issue<br><br>Otherwise - Requires FAA Decision |
| Personality Disorders                                    | All   | See III. B-1 below  | Requires FAA Decision  |
| Psychosis  | All   | See III. B-2 below  | Requires FAA Decision  |
| Psychotropic medications for Smoking Cessation           | All   | Document period of use, name and dosage of medication(s) and side-effects | If medication(s) discontinued for at least 30 days and w/o side-effects - Issue<br><br>Otherwise – Requires FAA Decision   |
| Substance Abuse  | All   | See III. B-6 below  | Requires FAA Decision  |
| Substance Dependence                                     | All   | See III.B-5 below   | Requires FAA Decision  |
| Suicide Attempt  | All   | Submit all pertinent medical information required                         | Requires FAA Decision  |

1. The category of personality disorders severe enough to have repeatedly manifested itself by overt acts refers to diagnosed personality disorders that involve what is called "acting out" behavior. These personality problems relate to poor social judgment, impulsivity, and disregard or antagonism toward authority, especially rules and regulations. A history of long-standing behavioral problems, whether major (criminal) or relatively minor (truancy, military misbehavior, petty criminal and civil indiscretions, and social instability), usually occurs with these

disorders. Driving infractions and previous failures to follow aviation regulations are critical examples of these acts.

Certain personality disorders and other mental disorders that include conditions of limited duration and/or widely varying severity may be disqualifying. Under this category, the FAA is especially concerned with significant depressive episodes requiring treatment, even outpatient therapy. If these episodes have been severe enough to cause some disruption of vocational or educational activity, or if they have required medication or involved suicidal ideation, the application should be deferred or denied issuance.

Some personality disorders and situational dysphorias may be considered disqualifying for a limited time. These include such conditions as gross immaturity and some personality disorders not involving or manifested by overt acts.

2. The category of psychosis includes schizophrenia and some bipolar and major depression, as well as some other rarer conditions. In addition, some conditions such as schizotypal and borderline personality disorders that include psychotic symptoms at some time in their course may also be disqualifying.

3. A bipolar disorder may not reach the level of psychosis but can be so disruptive of judgment and functioning (especially mania) so as to interfere with aviation safety. All applicants with such a diagnosis must be denied or deferred. However, a number of these applicants, so diagnosed, may be favorably considered for an Authorization when the symptoms do not constitute a threat to safe aviation operations.

4. Although they may be rare in occurrence, severe anxiety problems, especially anxiety and phobias associated with some aspect of flying, are considered significant. Organic mental disorders that cause a cognitive defect, even if the applicant is not psychotic, are considered disqualifying whether they are due to trauma, toxic exposure, or arteriosclerotic or other degenerative changes.

(See Item 18.m., page 32).

5. Substance dependence refers to the use of substances of dependence, which include alcohol and other drugs (i.e., PCP, sedatives and hypnotics, anxiolytics, marijuana, cocaine, opioids, amphetamines, hallucinogens, and other psychoactive drugs or chemicals). Substance dependence is defined and specified as a disqualifying medical condition. It is disqualifying unless there is clinical evidence, satisfactory to the Federal Air Surgeon, of recovery, including sustained total abstinence from the substance for not less than the preceding 2 years.



Substance dependence is evidenced by one or more of the following: increased tolerance, manifestation of withdrawal symptoms, impaired control of use, or continued use despite damage to physical health or impairment of social, personal, or occupational functioning. Substance dependence is accompanied by various deleterious effects on physical health as well as personal or social functioning. There are many other indicators of substance dependence in the history and physical examination. Treatment for substance dependence-related problems, arrests, including charges of driving under the influence of drugs or alcohol, and vocational or marital disruption related to drugs or alcohol consumption are important indicators. Alcohol on the breath at the time of a routine physical examination should arouse a high index of suspicion. Consumption of drugs or alcohol sufficient to cause liver damage is an indication of the presence of alcoholism.

6. Substance abuse includes the use of the above substances under any one of the following conditions:

- a. Use of a substance in the last 2 years in which the use was physically hazardous (e.g., DUI or DWI) if there has been at any other time an instance of the use of a substance also in a situation in which the use was physically hazardous;
- b. If a person has received a verified positive drug test result under an anti-drug program of the Department of Transportation or one of its administrations; or
- c. The Federal Air Surgeon finds that an applicant's misuse of a substance makes him or her unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held, or that may reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the applicant unable to perform those duties or exercise those privileges.

Substance dependence and substance abuse are specified as disqualifying medical conditions.

## ITEM 48. GENERAL SYSTEMIC

| CHECK EACH ITEM IN APPROPRIATE COLUMN | NORMAL | ABNORMAL |
|---------------------------------------|--------|----------|
| 48. General Systemic                  |        |          |

### I. Code of Federal Regulations

#### All Classes: 14 CFR 67.113(a)(b)(c), 67.213(a)(b)(c), and 67.313(a)(b)(c)

(a) No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.

(b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds -

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c) No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved, finds-

(1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or

(2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

### II. Examination Techniques

A protocol for examinations applicable to Item 48 (see page 122), is not provided because the necessary history-taking, observation, and other examination techniques used in examining other systems have already revealed much of what can be known about the status of the applicant's endocrine and other systems. For example, the examination of the skin alone can reveal important signs of thyroid dysfunction, Addison's disease, Cushing's disease, and several other endocrine disorders. The eye may reflect a thyroid disorder (exophthalmos) or diabetes (retinopathy).

When the Examiner reaches Item 48 (see page 122), in the course of the examination of an applicant, it is recommended that the Examiner take a moment to review and determine if key procedures have been performed in conjunction with examinations

made under other items, and to determine the relevance of any positive or abnormal findings.

### III. Aerospace Medical Disposition

The following is a table that lists the most common conditions of aeromedical significance, and course of action that should be taken by the examiner as defined by the protocol and disposition in the table. Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed in the table that may result in sudden or subtle incapacitation without consulting the AMCD or the RFS. Medical documentation must be submitted for any condition in order to support an issuance of an airman medical certificate.

| DISEASE/CONDITION  | CLASS | EVALUATION DATA  | DISPOSITION           |
|--|-------|--|-----------------------|
| <b>Blood and Blood-Forming Tissue Disease</b>  |       |  |                       |
| Anemia   | All   | Submit a current status report and all pertinent medical reports. Include a CBC, and any other tests deemed necessary        | Requires FAA Decision |
| Hemophilia   | All   | Submit a current status report and all pertinent medical reports. Include frequency, severity and location of bleeding sites | Requires FAA Decision |
| Other disease of the blood or blood-forming tissues that could adversely affect performance of airman duties | All   | Submit a current status report and all pertinent medical reports   | Requires FAA Decision |
| Polycythemia   | All   | Submit a current status report and all pertinent medical reports; include CBC  | Requires FAA Decision |

| DISEASE/CONDITION                              | CLASS                 | EVALUATION DATA  | DISPOSITION   |
|--|-----------------------|--|---|
| <b>Diabetes</b>                                |                       |  |   |
| Diabetes Insipidus                             | All                   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects | Requires FAA Decision   |
| Diabetes Mellitus Diet Controlled              | All                   | See Diabetes Mellitus Controlled by Diet and Exercise Protocol   | If no glycosuria and normal Hgba1c - Issue  |
| Diabetes Mellitus I requiring Insulin          | 1 <sup>st</sup> & 2nd | Not currently granting Special Issuance  | Requires FAA Decision   |
|  | 3rd                   | See Diabetes Mellitus I Protocol   | Requires FAA Decision   |
| Diabetes Mellitus II requiring Oral Medication | All                   | See Diabetes Mellitus II Protocol  | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol Requires FAA Decision |
| <b>Endocrine Disorders</b>                     |                       |  |   |
| Acromegaly                                     | All                   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects | Requires FAA Decision   |
| Addison's Disease                              | All                   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects | Requires FAA Decision   |

| DISEASE/CONDITION  | CLASS | EVALUATION DATA   | DISPOSITION   |
|--|-------|---|---|
| <b>Endocrine Disorders</b>                                       |       |   |   |
| Cushing's Disease or Syndrome                                    | All   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects  | Requires FAA Decision   |
| Hypoglycemia, whether functional or a result of pancreatic tumor | All   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects  | Requires FAA Decision   |
| Hyperparathyroidism  | All   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects, and current serum calcium and phosphorus levels | If status post-surgery, disease controlled, stable and no sequela<br>- Issue<br><br>Otherwise - Requires FAA Decision |
| Hypoparathyroidism   | All   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects and current serum calcium and phosphorus levels  | Requires FAA Decision   |

| DISEASE/CONDITION                         | CLASS | EVALUATION DATA   | DISPOSITION   |
|---|-------|---|---|
| <b>Endocrine Disorders</b>                |       |   |   |
| Hyperthyroidism                           | All   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects and current TFTs | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |
| Hypothyroidism <sup>23</sup>              | All   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects and current TFTs | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |
| Proteinuria & Glycosuria                  | All   | Submit all pertinent medical records; current status to include names and dosage of medication(s) and side effects                  | Trace or 1+ protein and glucose intolerance ruled out - Issue<br><br>Otherwise - Requires FAA Decision                |
| <b>Human Immunodeficiency Virus (HIV)</b> |       |   |   |
| Acquired Immunodeficiency Syndrome (AIDS) | All   | See HIV Protocol  | Requires FAA Decision   |
| Human Immunodeficiency Virus (HIV)        | All   | See HIV Protocol  | Requires FAA Decision   |

<sup>23</sup> The use of thyroid replacement therapy following diagnosis of either hyperthyroidism or hypothyroidism is not disqualifying if the applicant appears clinically euthyroid pending receipt of confirmatory laboratory tests.

| DISEASE/CONDITION                  | CLASS | EVALUATION DATA  | DISPOSITION   |
|------------------------------------|-------|--|---|
| <b>Leukemia, Acute and Chronic</b> |       |  |   |
| Leukemia, Acute and Chronic        | All   | Submit a current status report and all pertinent medical reports | <b>Initial Special Issuance</b> - Requires FAA Decision<br><br><b>Followup Special Issuance's</b> - See AASI Protocol |

## CHAPTER 4

### EXAMINATION TECHNIQUES AND CRITERIA FOR QUALIFICATION

#### ITEMS 49-64 of FAA Form 8500-8

This chapter provides guidance for the completion of Items 49-64 of FAA Form 8500-8. The Examiner is responsible for conducting the examination. However, he or she may delegate to a qualified physician's assistant, nurse, aide, or laboratory assistant the testing required for Items 49-58. Regardless of who performs the tests, the Examiner is responsible for the accuracy of the findings, and this responsibility **may not** be delegated.

After all routine evaluations and tests are completed, the Examiner should make a complete review of FAA Form 8500-8. If the form is complete and accurate, the Examiner should add final comments, make qualification decision statements, and sign the declaration. The medical history page of FAA Form 8500-8 must be completed in the handwriting of and signed and dated by the applicant. Upon completion of the physical examination, the entire FAA Form 8500-8, Items 1 through 64, **must** be electronically transmitted to the FAA.

#### ITEM 49. HEARING

|   |   |
|---|---|
| 49. Hearing   | Record Audiometric Speech<br>Discrimination Score Below |
| Conversational<br>Voice Test at 6 Feet<br><input type="checkbox"/> Pass <input type="checkbox"/> Fail |   |

#### I. Code of Federal Regulations

**All Classes: 14 CFR 67.105(a)(b)(c), 67.205(a)(b)(c), and 67.305(a)(b)(c)**

(a) The person shall demonstrate acceptable hearing by at least one of the following tests:

- (1) Demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the examiner, with the back turned to the examiner.
- (2) Demonstrate an acceptable understanding of speech as determined by audiometric speech discrimination testing to a score of at least 70 percent obtained in one ear or in a sound field environment.



(3) Provide acceptable results of pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American National Standards Institute, 1969 (11 West 42nd Street, New York, NY 10036):

| Frequency (Hz)  | 500 Hz | 1000 Hz | 2000 Hz | 3000 Hz |
|-----------------|--------|---------|---------|---------|
| Better ear (Db) | 35     | 30      | 30      | 40      |
| Poorer ear (Db) | 35     | 50      | 50      | 60      |

(b) No disease or condition of the middle or internal ear, nose, oral cavity, pharynx, or larynx that-

(1) Interferes with, or is aggravated by, flying or may reasonably be expected to do so; or

(2) Interferes with, or may reasonably be expected to interfere with, clear and effective speech communication.

(c) No disease or condition manifested by, or that may reasonably be expected to be manifested by, vertigo or a disturbance of equilibrium.

## II. Examination Equipment and Techniques

### A. Order of Examinations

1. The applicant must demonstrate an ability to hear an average conversational voice in a quiet room, using both ears, at a distance of 6 feet from the Examiner, with the back turned to the Examiner.

2. If an applicant fails the conversational voice test, the Examiner may administer pure tone audiometric testing of unaided hearing acuity according to the following table of worst acceptable thresholds, using the calibration standards of the American National Standards Institute, 1969:

| Frequency (Hz)  | 500 Hz | 1000 Hz | 2000 Hz | 3000 Hz |
|-----------------|--------|---------|---------|---------|
| Better ear (Db) | 35     | 30      | 30      | 40      |
| Poorer ear (Db) | 35     | 50      | 50      | 60      |

If the applicant fails an audiometric test and the conversational voice test had not been administered, the conversational voice test should be performed to determine if the standard applicable to that test can be met.

3. If an applicant is unable to pass either the conversational voice test or the pure tone audiometric test, then an audiometric speech discrimination test should be

administered. A passing score is at least 70 percent obtained in one ear at an intensity of no greater than 65 Db.

## B. Discussion

1. Conversational voice test. For all classes of certification, the applicant must demonstrate hearing of an average conversational voice in a quiet room, using both ears, at 6 feet, with the back turned to the Examiner. The Examiner should not use only sibilants (S-sounding test materials). If the applicant is able to repeat correctly the test numbers or words, "pass" should be noted and recorded on FAA Form 8500-8, Item 49. If the applicant is unable to hear a normal conversational voice then "fail" should be marked and one of the following tests may be administered:

2. Standard. For all classes of certification, the applicant may be examined by pure tone audiometry as an alternative to conversational voice testing or upon failing the conversational voice test. If the applicant fails the pure tone audiometric test and has not been tested by conversational voice, that test may be administered. The requirements expressed as audiometric standards according to a table of acceptable thresholds (American National Standards Institute [ANSI], 1969, calibration) are as follows:

| EAR(All classes of medical certification) |        |         |         |         |
|---|--------|---------|---------|---------|
| Frequency (Hz)                            | 500 Hz | 1000 Hz | 2000 Hz | 3000 Hz |
| Better ear (Db)                           | 35     | 30      | 30      | 40      |
| Poorer ear (Db)                           | 35     | 50      | 50      | 60      |

3. Audiometric Speech Discrimination. Upon failing both conversational voice and pure tone audiometric test, an audiometric speech discrimination test should be administered (usually by an otologist or audiologist). The applicant must score at least 70 percent at an intensity no greater than 65 Db in either ear.

## C. Equipment

1. Approval. The FAA does not approve or designate specific audiometric equipment for use in medical certification. Equipment used for FAA testing must accurately and reliably cover the required frequencies and have adequate threshold step features. Because every audiometer manufactured in the United States for screening and diagnostic purposes is built to meet appropriate standards, most audiometers should be acceptable *if they are maintained in proper calibration* and are used in an adequately quiet place.

2. Calibration. It is critical that any audiometer be periodically calibrated to ensure its continued accuracy. Annual calibration is recommended. Also recommended is the further safeguard of obtaining an occasional audiogram on a "known" subject or staff member between calibrations, especially at any time that a test result unexpectedly varies significantly from the hearing levels clinically expected. This

testing provides an approximate "at threshold" calibration. The Examiner should ensure that the audiometer is calibrated to ANSI standards or if calibrated to the older ASA/USASI standards, the appropriate correction is applied (see paragraph 3 below).

3. ASA/ANSI. Older audiometers were often calibrated to meet the standards specified by the USA Standards Institute (USASI), formerly the American Standards Association (ASA). These standards were based upon a U.S. Public Health Service survey. Newer audiometers are calibrated so that the zero hearing threshold level is now based on laboratory measurements rather than on the survey. In 1969, the American National Standards Institute (ANSI) incorporated these new measurements. Audiometers built to this standard have instruments or dials that read in ANSI values. For these reasons, *it is very important that every audiogram submitted (for values reported in Item 49 on FAA Form 8500-8) include a note indicating whether it is ASA or ANSI.* Only then can the FAA standards be appropriately applied. ASA or USASI values can be converted to ANSI by adding corrections as follows:

|                 |        |          |          |          |
|-----------------|--------|----------|----------|----------|
| Frequency (Hz)  | 500 Hz | 1,000 Hz | 2,000 Hz | 3,000 Hz |
| Decibels Added* | 14     | 10       | 8.5      | 8.5      |

\*The decibels added figure is the amount added to ASA or USASI at each specific frequency to convert to ANSI or older equivalent ISO values.

### III. Aerospace Medical Disposition

1. Special Issuance of Medical Certificates. Applicants who do not meet the auditory standards may be found eligible for a Statement of Demonstrated Ability (SODA). An applicant seeking a SODA must make the request in writing to the Aerospace Medicine Certification Division, AAM-300. A determination of qualifications will be made on the basis of a special medical examination by an ENT consultant, a MFT, or operational experience.

2. Bilateral Deafness. If otherwise qualified, the AMCD may issue a combination medical/student pilot certificate with the limitation VALID FOR STUDENT PILOT PURPOSES ONLY as well as the limitation NOT VALID FOR CONTROL ZONES OR AREAS WHERE RADIO COMMUNICATION IS REQUIRED. This will enable the applicant to proceed with training to the point of a private pilot checkride. See Items 25-30, page 39.

When the student pilot's instructor confirms the student's eligibility for a private pilot checkride, the applicant should submit a written request to the AMCD, for an authorization for a MFT. This test will be given by an FAA inspector in conjunction with the checkride. If the applicant successfully completes the test, the FAA will issue a third-class medical certificate and SODA. Pilot activities will be restricted to areas in which radio communication is not required.

3. Hearing Aids. If the applicant meets the standard with the use of hearing aids, the certificate may be issued with the following restriction:

**VALID ONLY WITH USE OF HEARING AMPLIFICATION**

Some pilots who normally wear hearing aids to assist in communicating while on the ground report that they elect not to wear them while flying. They prefer to use the volume amplification of the radio headphone. Some use the headphone on one ear for radio communication and the hearing aid in the other for cockpit communications.

**ITEMS 50- 54. OPHTHALMOLOGIC DISORDER**

**ITEM 50. DISTANT VISION**

| 50. Distant Vision |     |                  |
|--------------------|-----|------------------|
| Right              | 20/ | Corrected to 20/ |
| Left               | 20/ | Corrected to 20/ |
| Both               | 20/ | Corrected to 20/ |

**I. Code of Federal Regulations**

**First- and Second-Classes: 14 CFR 67.103(a) and 67.203(a)**

(a) Distant visual acuity of 20/20 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/20 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate

**Third-Class: 14 CFR 67.303(a)**

(a) Distant visual acuity of 20/40 or better in each eye separately, with or without corrective lenses. If corrective lenses (spectacles or contact lenses) are necessary for 20/40 vision, the person may be eligible only on the condition that corrective lenses are worn while exercising the privileges of an airman certificate.

**II. Examination Equipment and Techniques**

1. Each eye will be tested separately, and both eyes together.
2. Snellen 20-foot eye chart may be used as follows:
  - a. The Snellen chart should be illuminated by a 100-watt incandescent lamp placed 4 feet in front of and slightly above the chart.

- b. The chart or screen should be placed 20 feet from the applicant's eyes and the 20/20 line should be placed 5 feet 4 inches above the floor.
- c. A metal, opaque plastic, or cardboard occluder should be used to cover the eye not being examined.
- d. The examining room should be darkened with the exception of the illuminated chart or screen.
- e. If the applicant wears corrective lenses, the uncorrected acuity should be determined first, then corrected acuity. If the applicant wears contact lenses, see the recommendations in Chapter 3. Items 31-34, Eye, Section II, #5, (See page 49).
- f. Common errors:
  - 1. Failure to shield the applicant's eyes from extraneous light.
  - 2. Permitting the applicant to view the chart with both eyes.
  - 3. Failure to observe the applicant's face to detect squinting.
  - 4. Incorrect sizing of projected chart letters for a 20-foot distance.
  - 5. Failure to focus the projector sharply.
  - 6. Failure to obtain the corrected acuity when the applicant wears glasses.
  - 7. Failure to note and to require the removal of contact lenses.

3. Directions furnished by the manufacturer or distributor should be followed when using substitute devices for the above testing.

Acceptable Substitutes for Distant Vision Testing: Projector with screen; Keystone Orthoscope; Bausch & Lomb Orthorator; AOC Site-Screener; Titmus Vision Tester; Keystone Telebinocular; OPTEC 2000 Vision Tester.

### **III. Aerospace Medical Disposition**

A. When corrective lenses are required to meet the standards, an appropriate limitation will be placed on the medical certificate. For example, when lenses are needed for distant vision only:

**HOLDER SHALL WEAR CORRECTIVE LENSES**

For multiple vision defects involving distant and/or intermediate and/or near vision when one set of monofocal lenses corrects for all, the limitation is:

**HOLDER SHALL WEAR CORRECTIVE LENSES**

For combined defective distant and near visual acuity where multifocal lenses are required, the appropriate limitation is:

**HOLDER SHALL WEAR LENSES THAT CORRECT FOR DISTANT VISION  
AND POSSESS GLASSES THAT CORRECT FOR NEAR VISION**

For multiple vision defects involving distant, near, and intermediate visual acuity when more than one set of lenses is required to correct for all vision defects, the appropriate limitation is:

**HOLDER SHALL WEAR LENSES THAT CORRECT FOR DISTANT VISION  
AND POSSESS GLASSES THAT CORRECT FOR NEAR AND INTERMEDIATE  
VISION**

B. An applicant who fails to meet vision standards and has no SODA that covers the extent of the visual acuity defect found on examination may obtain further FAA consideration for grant of an Authorization under the special issuance section of part 67 (14 CFR 67.401) for medical certification by submitting a report of an eye evaluation. The Examiner can help to expedite the review procedure by forwarding a copy of FAA Form 8500-7, Report of Eye Evaluation, that has been completed by an eye specialist<sup>24</sup>.

C. Applicants who do not meet the visual standards should be referred to a specialist for evaluation. Applicants with visual acuity or ocular muscle balance problems may be referred to either an optometrist or an ophthalmologist of the applicant's choice. Applicants with eye disease (e.g., glaucoma) should be referred only to an ophthalmologist. The FAA Form 8500-7, Report of Eye Evaluation, should be provided to the specialist by the Examiner.

D. Amblyopia. In amblyopia ex anopsia, the visual acuity of one eye is decreased without presence of organic eye disease, usually because of strabismus or anisometropia in childhood. In amblyopia ex anopsia, the visual acuity loss is simply recorded in Item 50 of FAA form 8500-8, and visual standards are applied as usual. If the standards are not met, a report of eye evaluation, FAA Form 8500-7, should be submitted for consideration.

### Item 51.a. NEAR VISION

| 51.a. Near Vision |     |                  |
|-------------------|-----|------------------|
| Right             | 20/ | Corrected to 20/ |
| Left              | 20/ | Corrected to 20/ |
| Both              | 20/ | Corrected to 20/ |

<sup>24</sup> In obtaining special eye evaluations in respect to the airman medical certification program or the air traffic controller health program, reports from either optometrists or ophthalmologists are acceptable when the condition being evaluated relates to a determination of visual acuity, refractive error, or mechanical function of the eye. FAA Form 8500-7, Report of Eye Evaluation, is a form that is designed for use by either optometrists or ophthalmologists. In those cases where individuals are being referred for treatment or diagnosis of a disease of the eye, evaluations should usually be conducted by ophthalmologists. Board certification is not considered essential.

Therefore, except under unusual circumstances, you should make no distinction between optometrists or ophthalmologists as a source of information regarding visual acuity, refractive error, or mechanical function of the eye when referring applicants or employees for eye evaluations. You may, however, specify that only reports from ophthalmologists will be accepted when referring an individual for treatment or diagnosis of eye disease.

Any applicant eligible for a medical certificate through special issuance under these guidelines shall pass a MFT, which may be arranged through the appropriate agency medical authority. While waiting to complete a MFT, an applicant who is otherwise qualified for certification may be issued a medical certificate, which must contain the limitation "Valid for Student Pilot Privileges Only."

**ITEM 51.b. INTERMEDIATE VISION**

| 51.b. Intermediate Vision – 32 Inches |     |                  |
|---------------------------------------|-----|------------------|
| Right                                 | 20/ | Corrected to 20/ |
| Left                                  | 20/ | Corrected to 20/ |
| Both                                  | 20/ | Corrected to 20/ |

**I. Code of Federal Regulations****First- and Second-Classes: 14 CFR 67.103(b) and 67.203(b)**

(b) Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses. If age 50 or older, near vision of 20/40 or better, Snellen equivalent, at both 16 inches and 32 inches in each eye separately, with or without corrective lenses.

**Third-Class: 14 CFR 67.303(b)**

(b) Near vision of 20/40 or better, Snellen equivalent, at 16 inches in each eye separately, with or without corrective lenses.

**II. Equipment and Examination Techniques**

| NEAR AT 16 INCHES   | INTERMEDIATE AT 32 INCHES  |
|---|--|
| Near Vision Acuity Test Chart<br>Dated April 1993<br>FAA Form 8500-1  | Near Vision Acuity Test Chart<br>Dated April 1993<br>FAA Form 8500-1   |
| Acceptable substitutes:<br><br>AOC Site-Screener<br>Bausch & Lomb Orthorator<br>Keystone Orthoscope<br>Keystone Telebinocular<br>OPTEC 2000 Vision Tester<br>Titmus Vision Tester | Acceptable substitutes:<br><br>OPEC 2000 Vision Tester<br>Titmus Vision Tester<br>Titmus II Vision Tester<br>(Model Nos. TII and TIIS)<br>Titmus 2 Vision Tester<br>(Model Nos. T2A and T2S)<br>Others as approved |

1. Near visual acuity and intermediate visual acuity, if the latter is required, are determined for each eye separately and for both eyes together. Test values are recorded both with and without corrective glasses/lenses when either are worn or required to meet the standards. If the applicant is unable to meet the



intermediate acuity standard unaided, he or she then is tested using each of the corrective lenses or glasses otherwise needed by that person to meet distant and/or near visual acuity standards. If the aided acuity meets the standard using any of the lenses or glasses, the findings are recorded, and the certificate appropriately limited (see Appendix B). If an applicant has no lenses that bring intermediate and/or near visual acuity to the required standards, or better, in each eye, no certificate may be issued, and the applicant is referred to an eye specialist for appropriate visual evaluation and correction..

2. FAA Form 8500-1, Near Vision Acuity Test Chart, dated April 1993, should be used as follows:

a. The examination is conducted in a well-lighted room with the source of light behind the applicant.

b. The applicant holds the chart 16 inches (near) and 32 inches (intermediate) from the eyes in a position that will provide uniform illumination. To ensure that the chart is held at exactly 16 inches or 32 inches from the eyes, a string of that length may be attached to the chart.

c. Each eye is tested separately, with the other eye covered. Both eyes are then tested together.

d. The smallest type correctly read with each eye separately and both eyes together is recorded in linear value. In performing the test using FAA Form 8500-1, the level of visual acuity will be recorded as the line of smallest type the applicant reads accurately. The applicant should be allowed no more than two misread letters on any line.

e. Common errors:

1. Inadequate illumination of the test chart.
2. Failure to hold the chart the specified distance from the eye.
3. Failure to ensure that the untested eye is covered.
4. Failure to determine uncorrected and corrected acuity when the applicant wears glasses.

f. Practical Test. At the bottom of FAA Form 8500-1 is a section for Aeronautical Chart Reading. Letter types and charts are reproduced from aeronautical charts in their actual size.

This may be used when a borderline condition exists at the certifiable limits of an applicant's vision. If successfully completed, a favorable certification action may be taken.

3. Acceptable substitute instruments may be used, following the directions accompanying the instruments.

### **III. Aerospace Medical Disposition**

When correcting glasses are required to meet the near and intermediate vision standards, an appropriate limitation will be placed on the medical certificate. Contact lenses that correct only for near or intermediate visual acuity are not considered acceptable for aviation duties.

If the applicant meets the uncorrected near or intermediate vision standard of 20/40, but already uses spectacles that correct the vision better than 20/40, it is recommended that the Examiner enter the limitation for near or intermediate vision corrective glasses on the certificate.

For all classes, the appropriate wording for the near vision limitation is:

HOLDER SHALL POSSESS GLASSES THAT  
CORRECT FOR NEAR VISION

Possession only is required, because it may be hazardous to have distant vision obscured by the continuous wearing of reading glasses.

For first- and second-class, the appropriate wording for combined near and intermediate vision limitation is:

HOLDER SHALL POSSESS GLASSES THAT CORRECT  
FOR NEAR AND INTERMEDIATE VISION

For multiple defective distant, near, and intermediate visual acuity when unifocal glasses or contact lenses are used and correct all, the appropriate limitation is:

HOLDER SHALL WEAR CORRECTIVE LENSES

For multiple vision defects involving distance and/or near and/or intermediate visual acuity when more than one set of lenses is required to correct for all vision defects, the appropriate limitation is:

HOLDER SHALL WEAR LENSES THAT CORRECT FOR DISTANT VISION  
AND POSSESS GLASSES THAT CORRECT FOR  
NEAR AND INTERMEDIATE VISION

**ITEM 52. COLOR VISION**

|                          |      |
|--------------------------|------|
| 52. Color Vision         |      |
| <input type="checkbox"/> | Pass |
| <input type="checkbox"/> | Fail |

**I. Code of Federal Regulations****First- and Second-Classes: 14 CFR 67.103(c) and 67.203(c)**

(c) Color vision: Ability to perceive those colors necessary for the safe performance of airman duties.

**Third-Class: 14 CFR 67.303(c)**

(c) Color vision: Ability to perceive those colors necessary for the safe performance of airman duties.

**II. Examination Equipment and Techniques**

| EQUIPMENT                      | TEST  | EDITION         | PLATES |
|--------------------------------|---|-----------------|--------|
| Pseudoisochromatic plates      | <p>Test book should be held 30" from applicant</p> <p>Plates should be illuminated by at least 20' candles, preferably by a Macbeth Easel Lamp or a Verilux True Color Light (F15T8VLX)</p> <p>Only three seconds are allowed for the applicant to interpret and respond to a given plate</p> |                 |        |
| American Optical Company [AOC] |   | 1965            | 1-15   |
| AOC-HRR                        |   | 2 <sup>nd</sup> | 1-11   |
| Dvorine                        |   | 2 <sup>nd</sup> | 1-15   |
| Ishihara                       |   | 14 Plate        | 1-11   |
|                                |   | 24 Plate        | 1-15   |
|                                |   | 38 Plate        | 1-21   |
| Richmond, 15-plates            |   | 1983            | 1-15   |

Acceptable Substitutes: The procedures for the Farnsworth Lantern or OPTEC 900 Color Vision Test; Keystone Orthoscope; Keystone Telebinocular; LKC Technologies, Inc., APT-5 Color Vision Tester; OPTEC 2000 Vision Tester (Model Nos. 2000PM, 2000PAME, and 2000PI); Titmus Vision Tester; Titmus II Vision Tester (Model Nos. TII and TIIS); and the Titmus 2 Vision Tester (Model Nos. T2A and T2S) accompany the instructions.

### **III. Aerospace Medical Disposition**

An applicant does not meet the color vision standard if testing reveals:

#### **A. All Classes**

1. Seven or more errors on plates 1-15 of the AOC (1965 edition) pseudoisochromatic plates.
2. AOC-HRR (second edition): Any error in test plates 7-11. Because the first 4 plates in the test book are for demonstration only, test plate 7 is actually the eleventh plate in the book. (See instruction booklet.)
3. Seven or more errors on plates 1-15 of Dvorine pseudoisochromatic plates (second edition, 15 plates.)
4. Six or more errors on plates 1-11 of the concise 14-plate edition of the Ishihara pseudoisochromatic plates. Seven or more errors on plates 1-15 of the 24-plate edition of Ishihara pseudoisochromatic plates. Nine or more errors on plates 1-21 of the 38-plate edition of Ishihara pseudoisochromatic plates.
5. Seven or more errors on plates 1-15 of the Richmond (1983 edition) pseudoisochromatic plates.
6. Farnsworth Lantern test: An average of more than one error per series of nine color pairs in series 2 and 3. (See instruction booklet.)
7. Any errors in the six plates of the Titmus Vision Tester, the Titmus II Vision Tester, the Titmus 2 Vision Tester, the OPTEC 2000 Vision Tester, the OPTEC 900 Vision Tester the Keystone Orthoscope, or Keystone Telebinocular.
8. LKC Technologies, Inc., APT-5 Color Vision Tester. The letter must be correctly identified in at least two of the three presentations of each test condition. (See APT-5 screening chart for FAA-related testing in instruction booklet.)

**B. Certificate Limitation.**

If an applicant fails to meet the color vision standard as interpreted above but is otherwise qualified, the Examiner may issue a medical certificate bearing the limitation:

**NOT VALID FOR NIGHT FLYING OR BY COLOR SIGNAL CONTROL**

**C. Special Issuance of Medical Certificates.**

An applicant who holds a medical certificate bearing a color vision limitation may request a signal light test. This request should be in writing and should be directed to the AMCD or RFS. If the applicant passes the signal light test, the FAA will issue a medical certificate without the color vision limitation and provide the applicant with a "letter of evidence." The signal light test may be given at any time during flight training.

D. "Color Vision Correcting" Lens (e.g. X-Chrom). Such lens are unacceptable to the FAA as a means for correcting a pilot's color vision deficiencies.

E. Yarn Test. Yarn tests are not acceptable methods of testing for the FAA medical certificate.

**ITEM 53. FIELD OF VISION**

|  |  |
|--|--|
| <b>53. Field of Vision</b>             |  |
| <input type="checkbox"/> <b>Normal</b> | <input type="checkbox"/> <b>Abnormal</b> |

**I. Code of Federal Regulations**

**First- and Second-Classes: 14 CFR 67.103(d) and 67.203(d)**

(d) Field of Vision: Normal

**Third-Class: 14 CFR 67.303(d)**

(d) Field of Vision: No acute or chronic pathological condition of either eye or adnexa that interferes with the proper function of an eye, that may reasonably be expected to progress to that degree, or that may reasonably be expected to be aggravated by flying.

## **II. Examination Equipment and Techniques**

1. Fifty-inch square black matte surface wall target with center white fixation point; 2 millimeter white test object on black-handled holder:

- a. The applicant should be seated 40 inches from the target.
- b. An occluder should be placed over the applicant's right eye.
- c. The applicant should be instructed to keep the left eye focused on the fixation point.
- d. The white test object should be moved from the outside border of the wall target toward the point of fixation on each of the eight 4-degree radials.
- e. The result should be recorded on a worksheet as the number of inches from the fixation point at which the applicant first identifies the white target on each radial.
- f. The test should be repeated with the applicant's left eye occluded and the right eye focusing on the fixation point.

2. Alternative Techniques:

- a. A standard perimeter may be used in place of the above procedure. With this method, any significant deviation from normal field configuration will require evaluation by an ophthalmologist.
- b. Direct confrontation. This is the least acceptable alternative since this tests for peripheral vision and only grossly for field size and visual defects. The Examiner, standing in front of the applicant, has the applicant look at the Examiner's nose while advancing two moving fingers from slightly behind and to the side of the applicant in each of the four quadrants. Any significant deviation from normal requires ophthalmological evaluation.

## **III. Aerospace Medical Disposition**

### **A. Ophthalmological Consultations.**

If an applicant fails to identify the target in any presentation at a distance of less than 23 inches from the fixation point, an ophthalmologist's evaluation must be requested. This is a requirement for all classes of certification. The Examiner should provide FAA Form 8500-14, Ophthalmological Evaluation for Glaucoma, for use by the ophthalmologist if glaucoma is suspected.

**B. Glaucoma.**

The FAA may grant an Authorization under the special issuance section of part 67 (14 CFR 67.401) on an individual basis. The Examiner can facilitate FAA review by obtaining a report of Ophthalmological Evaluation for Glaucoma (FAA Form 8500-14) from a treating or evaluating ophthalmologist. (See Item 31).

**NOTE:** See AASI for History of Glaucoma.

If considerable disturbance in night vision is documented, the FAA may limit the medical certificate: NOT VALID FOR NIGHT FLYING

**C. Other Pathological Conditions.**

See Items 31-34, beginning on page 46.

**ITEM 54. HETEROPHORIA**

| 54. Heterophoria 20' (in prism diopters) | Esophoria | Exophoria | Right Hyperphoria | Left Hyperphoria |
|--|-----------|-----------|-------------------|------------------|
|  |           |           |                   |                  |

**I. Code of Federal Regulations****First- and Second-Classes: 14 CFR 67.103(f) and 67.203(f)**

(f) Bifoveal fixation and vergence-phoria relationship sufficient to prevent a break in fusion under conditions that may reasonably be expected to occur in performing airman duties. Tests for the factors named in this paragraph are not required except for persons found to have more than 1 prism diopter of hyperphoria, 6 prism diopters of esophoria, or 6 prism diopters of exophoria. If any of these values are exceeded, the Federal Air Surgeon may require the person to be examined by a qualified eye specialist to determine if there is bifoveal fixation and an adequate vergence-phoria relationship. However, if otherwise eligible, the person is issued a medical certificate pending the results of the examination.

**Third-Class: No Standards**

## II. Examination Equipment and Techniques

### A. Equipment

1. Red Maddox rod with handle.
2. Horizontal prism bar with graduated prisms beginning with one prism diopter and increasing in power to at least eight prism diopters.
3. Acceptable substitutes:

|                        |                                    |
|------------------------|------------------------------------|
| AOC Site-Screener      | Maddox rod and individual prisms   |
| Bausch & Lomb          | Maddox rod and Risley rotary prism |
| Orthorator             | OPTEC 2000 Vision Tester           |
| Keystone Orthoscope    | OPTEC 900 Vision Tester            |
| Keystone Telebinocular | Titmus Vision Tester               |

### B. Examination Techniques

Test procedures to be used accompany the instruments. If the Examiner needs specific instructions for use of the horizontal prism bar and red Maddox rod, these may be obtained from a RFS.

## III. Aerospace Medical Disposition

1. First- and Second-class: If an applicant exceeds the heterophoria standards (1 prism diopter of hyperphoria, 6 prism diopters of esophoria, or 6 prism diopters of exophoria), but shows no evidence of diplopia or serious eye pathology and all other aspects of the examination are favorable, the Examiner should not withhold or deny the medical certificate. The applicant should be advised that the FAA may require further examination by a qualified eye specialist.
2. Third-class: Applicants for a third-class certificate are not required to undergo heterophoria testing. However, if an applicant has strabismus or a history of diplopia, the Examiner should defer issuance of a certificate and forward the application to the AMCD. If the applicant wishes further consideration, the Examiner can help expedite FAA review by providing the applicant with a copy of FAA Form 8500-7, Report of Eye Evaluation.



**ITEM 55. BLOOD PRESSURE**

| 55. Blood Pressure      |          |           |
|-------------------------|----------|-----------|
|                         | Systolic | Diastolic |
| (Sitting mm of Mercury) |          |           |

**I. Code of Federal Regulations****All Classes: 14 CFR 67.113(b)(c), 67.213(b)(c), and 67.313(b)(c)**

(b). No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds-

(1). Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held;  
or

(2). May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

(c). No medication or other treatment that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the medication or other treatment involved finds -

(1). Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held;  
or

(2). May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

Measurement of blood pressure is an essential part of the FAA medical certification examination. The average blood pressure while sitting should not exceed 155 mm mercury systolic and 95 mm mercury diastolic maximum pressure for all classes. A medical assessment is specified for all applicants who need or use antihypertensive medication to control blood pressure. (See B. below.)

**II. Examination Techniques**

In accordance with accepted clinical procedures, routine blood pressure should be taken with the applicant in the seated position. An applicant should not be denied or deferred first-, second-, or third-class certification unless subsequent recumbent blood pressure readings exceed those contained in this Guide. Any conditions that may adversely affect the validity of the blood pressure reading should be noted.

### III. Aerospace Medical Disposition

#### A. Examining Options

1. An applicant whose pressures are within the above limits, who has not used antihypertensives for 30 days, and who is otherwise qualified should be issued a medical certificate by the Examiner.
2. An applicant whose blood pressure is slightly elevated beyond the FAA specified limits, may, at the Examiner's discretion, have a series of 3 daily readings over a 7-day period. If the indication of hypertension remains, even if it is mild or intermittent, the Examiner should defer certification and transmit the application to the AMCD with a note of explanation.

The Examiner must defer issuance of a medical certificate to any applicant whose hypertension has not been evaluated, who uses unacceptable medications, whose medical status is unclear, whose hypertension is uncontrolled, who manifests significant adverse effects of medication, or whose certification has previously been specifically reserved to the FAA.

#### B. Initial and Followup Evaluation for Hypertensives Under Treatment - See Hypertension Protocol

### ITEM 56. PULSE

|                                |
|--------------------------------|
| <b>56. Pulse<br/>(Resting)</b> |
|--------------------------------|

The medical standards do not specify pulse rates that, *per se*, are disqualifying for medical certification. These tests are used, however, to determine the status and responsiveness of the cardiovascular system. Abnormal pulse rates may be reason to conduct additional cardiovascular system evaluations.

### II. Examination Techniques

The pulse rate is determined with the individual relaxed in a sitting position.

### III. Aerospace Medical Disposition

If there is bradycardia, tachycardia, or arrhythmia, further evaluation is warranted and deferral may be indicated (see Item 36, page 63 for more details.) A cardiac evaluation may be needed to determine the applicant's qualifications. Temporary stresses or fever may, at times, result in abnormal pulse readings. If the Examiner believes this to be the case, the applicant should be given a few days to recover and then be retested. If this is not possible, the Examiner should defer issuance, pending further evaluation.

**ITEM 57. URINALYSIS**

| 57. Urinalysis (if abnormal, give results) |                                   |         |       |
|--|-----------------------------------|---------|-------|
|  |                                   | Albumin | Sugar |
| <input type="checkbox"/> Normal            | <input type="checkbox"/> Abnormal |         |       |

**I. Code of Federal Regulations****All Classes: 14 CFR 67.113(a)(b), 67.213(a)(b), and 67.313(a)(b)**

- (a) No established medical history or clinical diagnosis of diabetes mellitus that requires insulin or any other hypoglycemic drug for control.
- (b) No other organic, functional, or structural disease, defect, or limitation that the Federal Air Surgeon, based on the case history and appropriate, qualified medical judgment relating to the condition involved, finds
  - (1) Makes the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held; or
  - (2) May reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges.

**II. Examination Techniques**

Any standard laboratory procedures are acceptable for these tests.

**III. Aerospace Medical Disposition**

Glycosuria or proteinuria is cause for deferral of medical certificate issuance until additional studies determine the status of the endocrine and/or urinary systems. If the glycosuria has been determined not to be due to carbohydrate intolerance, the Examiner may issue the certificate. Trace or 1+ proteinuria in the absence of a history of renal disease is not cause for denial.

The Examiner may request additional urinary tests when they are indicated by history or examination. These should be reported on FAA Form 8500-8 or attached to the form as an addendum.

**ITEM 58. ECG**

|                |    |      |
|----------------|----|------|
| 58. ECG (Date) |    |      |
| MM             | DD | YYYY |
|                |    |      |

**I. Code of Federal Regulations****First-Class: 14 CFR 67.111(b)(c)**

(b) A person applying for first-class medical certification must demonstrate an absence of myocardial infarction and other clinically significant abnormality on electrocardiographic examination:

- (1) At the first application after reaching the 35th birthday; and
- (2) On an annual basis after reaching the 40th birthday.

(c) An ECG will satisfy a requirement of paragraph (b) of this section if it is dated no earlier than 60 days before the date of the application it is to accompany and was performed and transmitted according to acceptable standards and techniques.

**Note:** All applicants for certification may be required to provide ECG's when indicated by history or physical examination.

**II. Examination Techniques**

A. Date. The date of the most recent ECG shall be entered in Item 58 of FAA Form 8500-8 for all first-class applicants.

1. If a first-class applicant is due for a periodic ECG, the Examiner performs and transmits a current tracing according to established procedures. (See D. below).

However, some applicants (such as airline transport pilots who are employed by air carriers with medical departments) may have their company transmit a current ECG directly to the FAA. The Examiner need not require such an applicant to undergo another ECG examination and, if the applicant is otherwise qualified, a medical certificate may be issued. The Examiner should attach a statement to FAA Form 8500-8 to verify that a tracing has been transmitted from another source. The date of that ECG should be entered in Item 58.

2. If a first-class applicant is not required to have a periodic ECG with the current examination, the Examiner should record the date of the preceding ECG in Item 58.

3. If a second- or third-class applicant gives a history of having had an electrocardiogram, the test and date may be entered in Item 59. More importantly, the Examiner should indicate in Item 60 of FAA Form 8500-8 the history and its significance, if any.

4. If the applicant provides no statement and refuses to have a current ECG submitted by the Examiner, the Examiner should defer issuance of the medical certificate. When an ECG is due but is not submitted, the FAA will not affirm the applicant's eligibility for medical certification until the requested ECG has been received and interpreted as being within normal limits. Failure to respond to FAA requests for a required current ECG will result in denial of certification.

#### B. Currency

1. In order to meet regulatory requirements, a first-class applicant's periodic ECG must have been performed and transmitted within 60 days prior to the date of the first-class application (FAA Form 8500-8). The AMCD, verifies currency of all periodic ECG's.

2. There is no provision for issuance of a first-class medical certificate based upon a promise that an ECG will be obtained at a future date. In such circumstances, the Examiner should defer issuance and mail the completed FAA Form 8500-8 to the AMCD.

#### C. Interpretation

1. All ECG's required to establish eligibility for medical certification must be forwarded for interpretation to the Manager of the AMCD. This does not preclude submission of an interpretation by or through the Examiner.

2. Interpretation is accomplished by the staff and consultant cardiologists at the AMCD. Abnormalities are investigated to determine their significance, if any.

#### D. Technique and Reporting Format for Required ECG's on First-class Applicants

The method for recording and transmitting ECG's is by digital electronic data transfer by the Examiner to the AMCD. Senior Examiners who perform first-class medical examinations are required to have access to this capability.

International Examiners who submit ECG's should use the following format for preparation and submission:

1. See FAA Form 8065-1, Appendix B, Instructions for Preparation and Submittal of Electrocardiogram. However, the FAA also will accept 3-channel or 12-channel strips uncut or mounted on standard mounting paper. The following steps are essential to expedite processing of these tracings:

- a. All leads must be properly identified.
  - b. Applicant and Examiner identification must be complete and the tracing must be dated.
2. Such hard-copy ECG's are microfilmed for permanent retention in the AMCD. Only tracings that can be microfilmed are acceptable.
  3. Provide a Resting tracing. Tracings must be stapled to the ECG report form to ensure that all leads are appropriately coded and interpreted.

## ITEM 59. OTHER TESTS GIVEN

|                       |
|-----------------------|
| 59. Other Tests Given |
|                       |

### I. Code of Federal Regulations

#### All Classes: 14 CFR 67.413(a)(b)

(a) Whenever the Administrator finds that additional medical information or history is necessary to determine whether an applicant for or the holder of a medical certificate meets the medical standards for it, the Administrator requests that person to furnish that information or to authorize any clinic, hospital, physician, or other person to release to the Administrator all available information or records concerning that history. If the applicant or holder fails to provide the requested medical information or history or to authorize the release so requested, the Administrator may suspend, modify, or revoke all medical certificates the airman holds or may, in the case of an applicant, deny the application for an airman medical certificate.

(b) If an airman medical certificate is suspended or modified under paragraph (a) of this section, that suspension or modification remains in effect until the requested information, history, or authorization is provided to the FAA and until the Federal Air Surgeon determines whether the person meets the medical standards under this part.

### II. Examination Techniques

Additional medical information may be furnished through additional history taking, further clinical examination procedures, and supplemental laboratory procedures.

On rare occasions, even surgical procedures such as biopsies may be indicated. As a designee of the FAA Administrator, the Examiner has limited authority to apply 14 CFR 67.413 in processing applications for medical certification. When an Examiner

determines that there is a need for additional medical information, based upon history and findings, the Examiner is authorized to request prior hospital and outpatient records and to request supplementary examinations including laboratory testing and examinations by appropriate medical specialists. The Examiner should discuss the need with the applicant. The applicant should be advised of the types of additional examinations required and the type of medical specialist to be consulted. Responsibility for ensuring that these examinations are forwarded and that any charges or fees are paid will rest with the applicant. All reports should be forwarded to the AMCD, unless otherwise directed (such as by a RFS.)

Whenever, in the Examiner's opinion, medical records are necessary to evaluate an applicant's medical fitness, the Examiner should request that the applicant sign an authorization for the Release of Medical Information (FAA Form 8500-21.) (See Appendix B.) The Examiner should forward this authorization to the custodian of the applicant's records so that the information contained in the record may be obtained for attachment to the report of medical examination.

## ITEM 60. COMMENTS ON HISTORY AND FINDINGS

60. Comments on History and Findings: AME shall comment on all "YES" answers in the Medical History section and for abnormal findings of the examination. (Attach all consultation reports, ECG's, X-rays, etc., to this report before mailing).

|                             |                          |     |                          |    |                            |                          |     |                          |    |
|-----------------------------|--------------------------|-----|--------------------------|----|----------------------------|--------------------------|-----|--------------------------|----|
| Significant Medical History | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No | Abnormal Physical Findings | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
|-----------------------------|--------------------------|-----|--------------------------|----|----------------------------|--------------------------|-----|--------------------------|----|

Comments on all positive history or medical examination findings must be reported by **Item Number**. Item 60 provides the Examiner an opportunity to report observations and/or findings that are not asked for on the application form. Concern about the applicant's behavior, abnormal situations arising during the examination, unusual findings, unreported history, and other information thought germane to aviation safety should be reported in Item 60. The Examiner should record name, dosage, frequency, and purpose for all currently used medications.

If possible, all ancillary reports such as consultations, ECG's, x-ray release forms, and hospital or other treatment records should be attached. If the delay for those items would exceed 14 days, the Examiner should forward all available data to the AMCD, with a note specifying what additional information is being prepared for submission at a later date.

If there are no significant medical history items or abnormal physical findings, the Examiner should indicate this by checking the appropriate block.

**ITEM 61. APPLICANT'S NAME**

|                           |
|---------------------------|
| Item 61. Applicant's Name |
|---------------------------|

The applicant's name should be typed.

**ITEM 62. HAS BEEN ISSUED**

|                          |  |  |
|--------------------------|--|--|
| Item 62. Has Been Issued | <input type="checkbox"/> Medical Certificate | <input type="checkbox"/> Medical & Student Pilot Certificate |
| <input type="checkbox"/> | No Medical Certificate Issued                | Deferred for Further Evaluation                              |
| <input type="checkbox"/> | Has Been Denied                              | Letter of Denial Issued (Copy Attached)                      |

The Examiner must check the proper box to indicate if the Medical Certificate, FAA Form 8500-9 (white), or Medical Certificate and Student Pilot Certificate, FAA Form 8420-2 (yellow), has been issued. If neither form has been issued, the Examiner must indicate denial or deferral by checking one of the two lower boxes. If denied, a copy of the Examiner's letter of denial, FAA Form 8500-2, should be forwarded to the AMCD.

A. Applicant's Refusal. When advised by an Examiner that further examination and/or medical records are needed, the applicant may elect not to proceed. The Examiner should note this on FAA Form 8500-8. No certificate should be issued, and the Examiner should forward the application form to the AMCD, even if the application is incomplete.

B. Anticipated Delay. When the Examiner anticipates a delay of more than 14 days in obtaining records or reports concerning additional examinations, the completed FAA Form 8500-8 should be transmitted to the AMCD with a note stating that additional information will follow. No medical certificate should be issued.

C. Issuance. When the Examiner receives all the supplemental information requested and finds that the applicant meets all the FAA medical standards for the class sought, the Examiner should issue a medical certificate.

D. Deferral. If upon receipt of the information the Examiner finds there is a need for even more information or there is uncertainty about the significance of the findings, certification should be deferred. The Examiner's concerns should be noted on FAA Form 8500-8 and the application transmitted to the AMCD for further consideration.

If the applicant decides at this point to abandon the application for a medical certificate, the Examiner should also note this on FAA Form 8500-8 and mail the incomplete form



to the AMCD. An incomplete FAA Form 8500-8 should not be transmitted to the AMCD for further consideration.

E. Denial. When the Examiner concludes that the applicant is clearly ineligible for certification, the applicant should be denied, using FAA Form 8500-2. (See Appendix B.) Use of this form will provide the applicant with the reason for the denial and with appeal rights and procedures. (See Chapter 1, Item 4, Medical Certification Decision Making and AME Assisted Special Issuance, page 4.)

## ITEM 63. DISQUALIFYING DEFECTS

63. Disqualifying Defects (List by Item number)

List all disqualifying defects, diagnoses, or conditions by **ITEM NUMBER** that serve as the basis for denial or deferral in Item 63. Comments or discussion of specific observations or findings may be reported in Item 60 or submitted on a separate sheet of paper.

If the Examiner denies the applicant, the Examiner must issue a Letter of Denial, FAA Form 8500-2 to the applicant, and report the issuance of the denial in Item 60.

## ITEM 64. MEDICAL EXAMINER'S DECLARATION

Item 64. Medical Examiner's Declaration - I hereby certify that I have personally reviewed the medical history and personally examined the applicant named on this medical examination report. This report with any attachment embodies my findings completely and correctly.

|                     |    |      |                                  |       |                                       |
|---------------------|----|------|----------------------------------|-------|---------------------------------------|
| Date of Examination |    |      | Aviation Medical Examiner's Name |       | Aviation Medical Examiner's Signature |
| MM                  | DD | YYYY | Street Address                   |       |                                       |
|                     |    |      |                                  |       | AME Serial Number                     |
|                     |    |      | City                             | State | Zip Code                              |
|                     |    |      | AME Telephone Number (    )      |       |                                       |

If the application is not transmitted electronically, the date of examination and the Examiner's name and complete address must be typed. The Examiner must personally sign the completed form. The Examiner's serial number and telephone number should be entered in the blocks provided.

The FAA designates specific individuals as Examiners, and this status may not be further delegated to a physician who may be covering the designee's practice.

Although the FAA does not require that the Examiner sign the Examiner's copy of FAA Form 8500-8, the Examiner should at least personally initial this form.